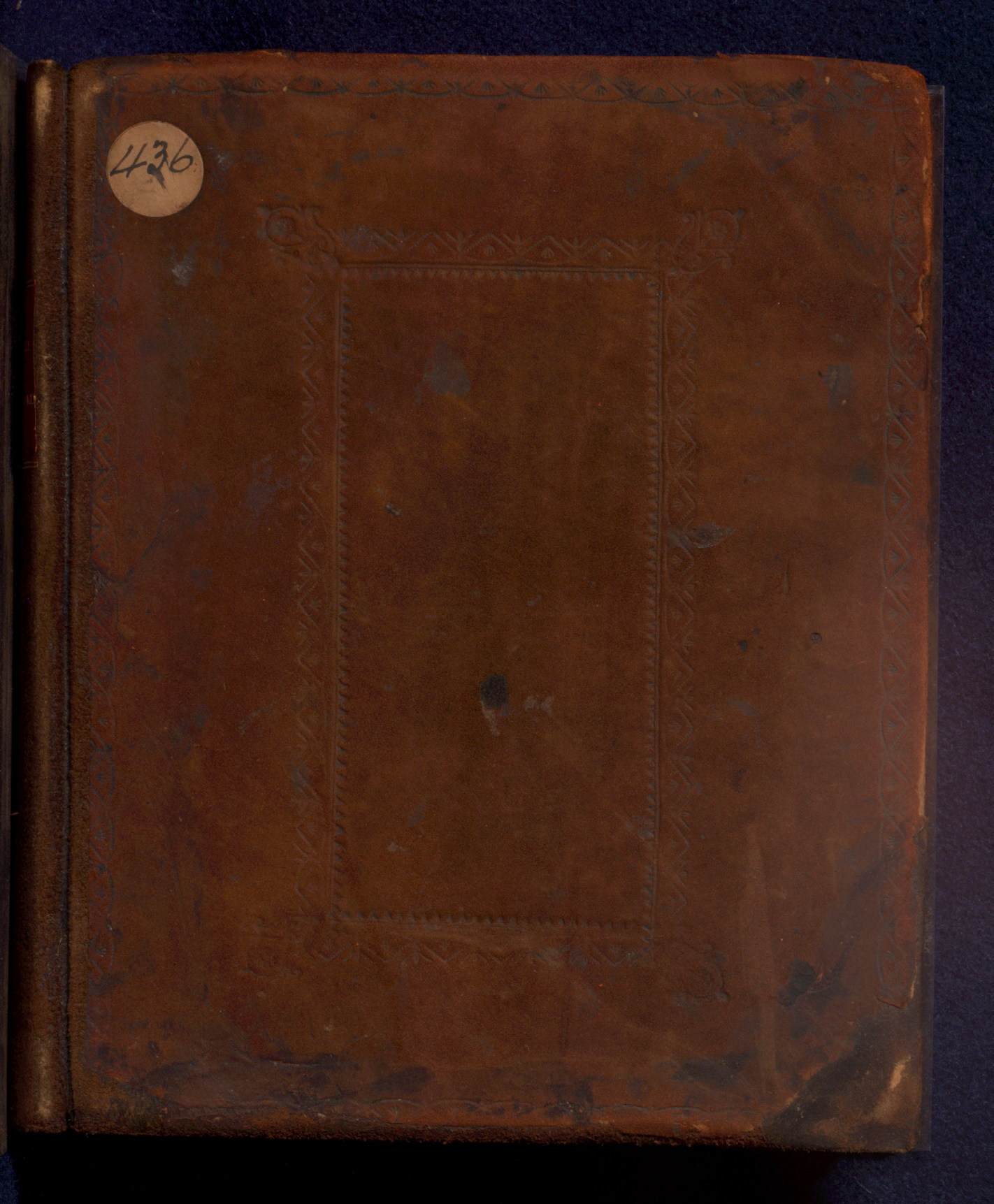


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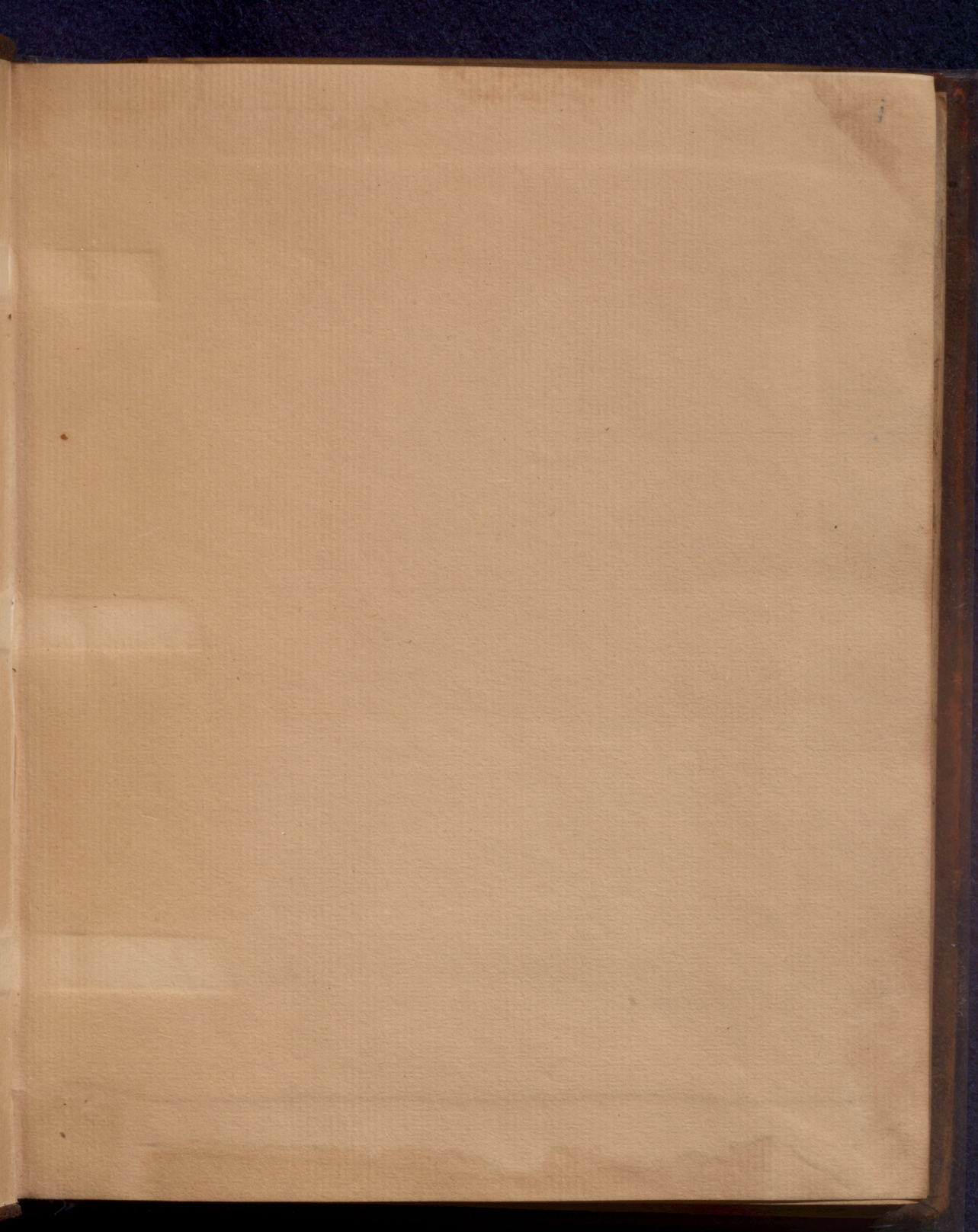
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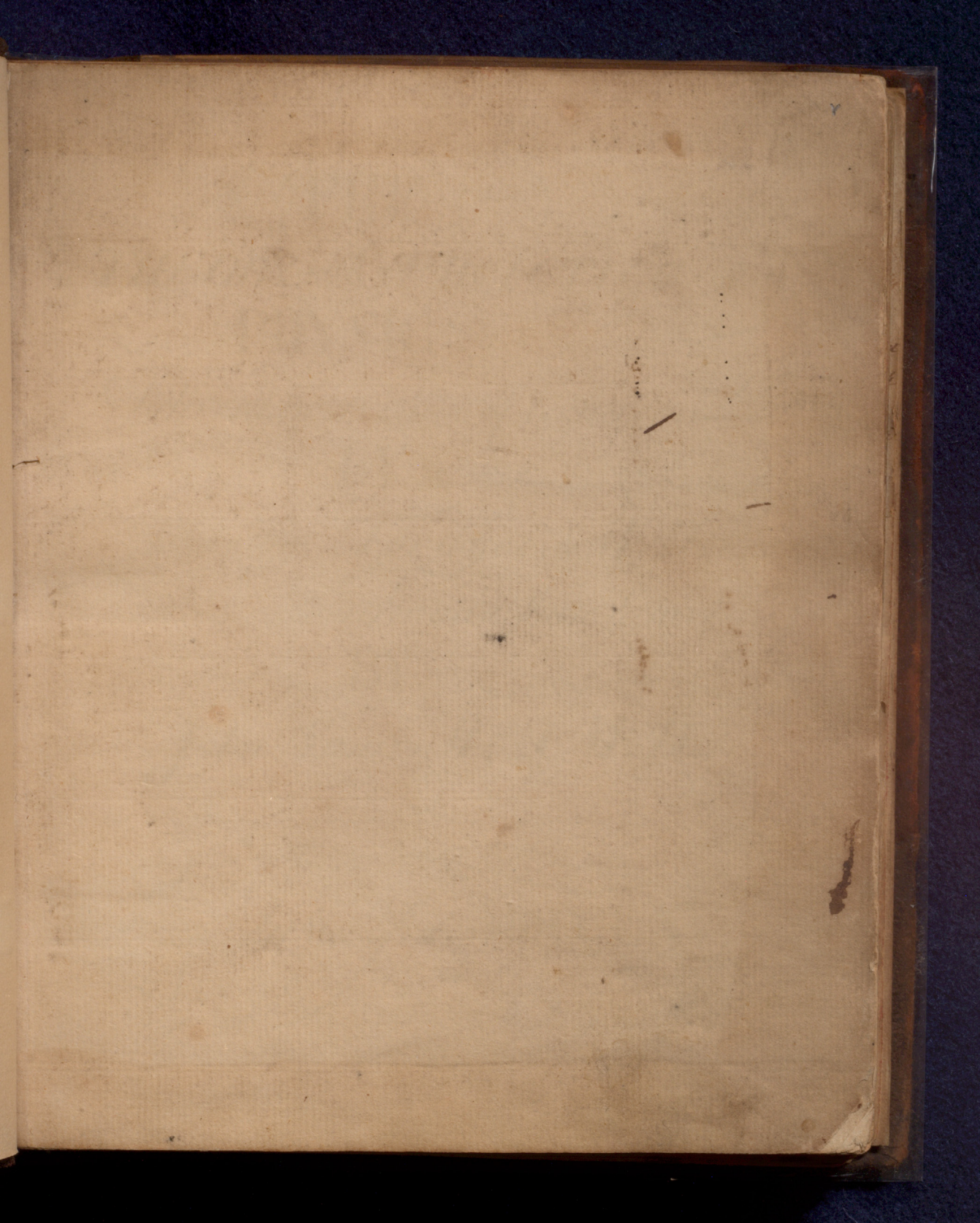
' The Theory and Practice of Physic : deliver'd in a Course of Lectures, by the ingenious & learned George Fordyce, M.D. Taken in shorthand at those Lectures, by John Samwell, M.D. In the year, M,DCC,LXV.' Transcript in long hand. Pp. i-vi, 366-7, 733-6 are blank.

George Fordyce, of Aberdeen, a pupil of Cullen and of Albinus, began lecturing on chemistry in London in 1759, adding the present course in 1764, and gave three lectures daily for nearly 30 years.

7557



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THE
THEORY and PRACTICE of
PHYSIC :

Deliver'd in a Course of Lectures,

BY *The Ingenious & Learned*

George Fordyce, M.D.

Taken in Short Hand at those Lectures,

BY

John Samwell, M.D.

In the Year, MDCCLXV.

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The Introductory Discourse

Natural Philosophy, Chemistry, Anatomy & Botany, are sciences, & are only preliminary to ^{the} study of Physic; a due acquaintance with them is undoubtedly of great consequence in order to practice Physic with reputation & success, but persons may be well vers'd in each of these sciences with^{out} attaining a proper acquaintance with the ~~science~~ ^{art} of heal^{ing}, & there have been instances of some, who have practiced Physic with success who have been greatly deficient in those useful branches of science.

We now introduce you to ^{the} most valuable of arts & sciences, as it has ^{the} most important end in view, ^{the} preservation of ^{the} Lives of Mankind; of continuing Health, or restoring it w^{hen} lost, with^{out} ^{the} enjoyment of which, all other comforts are but of little value.

Health may be defin'd to be, "An Ability of performing all ^{the} Functions of ^{the} Body properly." — If any Organ is hurt or destroy'd, or ^{the} action of which any of ^{the} functions of ^{the} Body depend, this constitutes a Disease.

If any part is in Pain we consider this also as a Disease; Death is a complete abolition of all ^{the} bodily Functions.

But ^{the} Body may be consider'd as distinct from ^{the} functions perform'd by it, & life itself may be destroy'd with^{out} alter^{ing} or destroy^{ing} any of its functions, as is violently done by ^{the} application of Gas Sulphur or concentrated Spirits to the nostrils, by which a person is instantly destroy'd.

Definition of
Health &
Disease

Introductory Discourse

What Nature is

The Body is a machine actuated by a living Power, & which is subject to certain fixed Laws of Action — And the body subject to these Laws is call'd, Nature

How it cures Disease

Every part of y^e Body is so wisely constructed as to contribute to its own cure w^o disease; — Thus the Lungs w^o inflam'd promote secretion, whereby a plentiful spit^g is bro't on, which resolves & cures y^e Disease. — Thus in a wound or Ulcer, a granulation arises which closes up & heals the part.

~~But~~ If every part of y^e Body was to perform its office in this respect, there w^od be no need for any assistance from medicine; but it frequently happens, y^t y^e operations whereby Nature w^od relieve itself are by some means prevented, so y^t the cure is not perform'd; here then the Art of healing is call'd in to assist y^e Cure — Thus for example, in y^e Inflammation of Lungs, it frequently happens y^t by y^e application of cold y^e secretion of mucus is stop'd, & y^e inflammation greatly increas'd, which w^oth^t y^e assistance of Art w^od terminate in suppuration or Gangrene — The same may happen in y^e case of Ulcers, on cold being appld. y^e lips become inflamd & y^e granulation ceases. — The business of Art is not only to prevent these accidents from taking place, but also to remove them w^o already happen'd.

The use of Phlegm

To assist Nature

This, then is one office pertain'g to Physic, to assist Nature in y^e cure of a Disease

But it frequently happens, y^t Nature does not produce those means whereby the disease is removed; as for example, Granulatory flesh many times does not

Introductory Discourse

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arise in ulcers, & therefore must be produced by if assistance of Art.

— imitate Nat^l. This is the 2^d office of if Physician, To imitate Nature

We can lastly, take many times a shorter method of performing the Cure, than Nature w^d do if left to its own management: for instance, a recent wound, may be much sooner heal'd by clasp'g of edges together, & thereby producing an immediate union of if parts separated, than it w^d be done in if common method of Incision.

Cure with^l Nature We can also Cure with^l if assistance of Nature; this is done in if venereal Disease by if use of Mercurials.

And as Physic is conversant in if cure of Diseases, so tis of great service in if conservation of Health; for by a due acquaintance with the structure of if human Body, if causes of diseases, & if method of preventing them, we can lay down Rules for if preservation of Health.

This, tis true, has been br^d into dispute by if unskillfullness, ^{of these} who have laid down false Rules; but this does by no means prove, if. This is not a very important part of Physic.

To relieve incurable Diseases Lastly where Diseases are in themselves incurable, yet they may be greatly alleviated, & death itself made more easy by if assistance reciev'd from Medicine.

I now come to consider if manner we are to attain our knowledge in this Science. — 'Tis not to be obtain'd by any reasonings A Priori; all our knowledge must arise from Experiment — Nor is this to be obtain'd by if experience & observation of any single Person; he must be assist'd by if observation & experience of others, & that thro' many successive Ages

Introductory Discourse

nor can a Person well cure any particular Disease without being in some measure acquainted with of science in general, as there are seldom found two cases if are in every respect alike

The History
of Physic

The progress of this science was ~~very~~ slow; it had its origin from
experience alone. — The Egyptian Priests were its first professors, who
ador'd their knowledge from 12 votive Tables of. were hung up in the
Temples by those of. were recover'd from Diseases, specify'd their particular
Maladies & the methods whereby they obtain'd relief.

The immortal Hippocrates was first of laid down maxims from these cases, & reduced Physic into a science. As fresh cases occurred, new Rules were deduced from them.

After several ages, Galen transferred the seat of Physic from Greece to Rome; but on the Roman Empire being over-run ^{by} Barbarians, it was once more transfer'd to the East; where the Arabians, who destroy'd all other kinds of knowledge, cultivated Physic — In process of time, it was brought back to Europe again.

The discovery of the East & West Indies was the means of introducing many new Medicines into the practice of Physic. —

In so many Ages in w^{ch} Physic has been cultivated it might be expected if it is now arriv'd to its greatest perfection; this is in some measure true: but unfortunately many of its professors are not acquainted with all the facts necessary to a thorough knowledge of it; & others explain those facts agreeable to their different Systems of Philosophy.

Introductory Discourse

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This was remarkably of use with of ancient Professors of Physic; some of them attempted to account for Phenomena by different degrees of heat & cold prevailg in of system; others by different Humors be be
 Different Theories in Physic
 - Galen's Galen, supposed, of there ^{were} 3 different degrees of heat & cold, & as many of dryness & moisture incident to of human Body, & of health consisted in a due proportion of these qualities; agreeable to this Hypothesis, w^o the Body was too cold, its heat must be increased, w^o too dry it must be moistend.

This System was universally used, till Paracelsus ^{doomed} his doctrine of Particles; he imagin'd, that there were large particles in the blood w^h he call'd by of name of Inertar, which not being capable of passg thro' of smaller vessels caus'd obstructions, & for of removal of w^h ^{Attendants} must be made use of.

This Doctrine was oppos'd by Van Helmont, who maintain'd, of of Demon or Spiritus Acidus (or in other words of soul) was constantly endeavorg to maintain of health of of body, or to restore it w^o lost, by whose efforts Fevers, & other commotions, were rais'd in of system with a view to expell of Disease

The Doctrine of Similarity took its rise from Astrology; it was imagin'd of, because particular plants bore some resemblance to of appearance of particular Diseases, therefore they must be efficacious for their cure.

Thus The Crem was tho't of great service in of Scourgy, because the spots on the leaves bore a resemblance to of blotches of frequently appear on the skin in of Disease.

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 Different Theories
 in Physic
 - Galen's
 Paracelsus
 Van Helmont
 Astrology
 The Crem
 Scourgy
 blotches
 frequently
 appear
 on the skin
 in of Disease

Introductory Discourse

To the same origin, 'tis probable, we are to ascribe *if* Doctrine of Sympathy & Antipathy —

Of these different systems, there are two of them still retain'd; Paracelsus's Doctrine of Obstructions expos'd & new model'd by Boerhaave; and Van Helmonts *if* Spiritus Archæus supported by Hall & his followers.

Mistake in
Boerhaave's Theory

Obstruction

The Theory of Obstruction supposes, *if* the Blood is of different consistence, & sometimes so thick as to be incapable of pass'g thro' of smaller vessels; this viscosity they divide into two sorts, the Phlogistic, & the Spontaneous Lentor; from *if* former all inflammatory Disorders take their origin; from the other, the diseases of weaknefs arise.

But Boerhaave shoud have prov'd *if* such a spontaneous Lentor does really take place, but no experiment has been yet produced for *if* purpose.

Indeed there is an experiment produced to prove *if* existence of an inflammatory Lentor, & that is the inflammatory Coat that is seen on blood drawn from Patients laboring under such diseases — but unfortunately this proves the reverse; for *if* coagulable Lymph rise to the top proves that it is thinner & on that acct. *if* red globules are not supported by it, but subside to *if* bottom — but we shall speak more of this hereafter.

It has been sup'd also, *if* ~~if~~ Diameters of *if* lesser vessels were not so large as some of *if* grosser Particles of *if* Blood, & therefore but a part of it co'd pass thro' those minute Tubes — but it is certain that those grosser particles do subdivide into ^{smaller} parts which are abundantly less than the diameters of *if* finest of those vessels.

Introductory Discourse

The Aerimony of *if* Fluids is another part of *if* Boerhaavian Hypothesis. The pensurable matter has been considered as a very acid fluid, the retention of which has been tho' to be *if* cause of many Disorders. But from *if* Experiments *if* have been made on this fluid it does not appear to be posess of any such noxious property.

It has been further supposed *if* *if* insides of *if* blood vessels are very sensible in consequence of which they are very liable to be affected by *if* Stimulus of this Aerimonious *if* fluids; but this on experiment also is found not to be fact. — Thus like the other Hypothesis, *if* of Boerhaave's proves

to be in many respects false. Nor is the number of learned men who have espoused it any proof of its truth; for Galen's principles have much greater numbers as well as Antiquity of their Side.

Stahl's followers, on the other hand, suppose, *if* bleedg greatly weakens the *Spiritus Arterialis*, & therefore they omit bleedg on *if* most urgent symptoms.

The Theory unsupported by Experiment frequently leads persons to *if* most absurd practices, yet this does not prove but *if* a Theory properly founded is of great service — Some system we must have, because we must always practice from Analogy; & a bad one is better than none because we have opportunities by accurate observation to make daily improvements

therein — Our aim shoud be, to have our Theory founded upon experiment. for theory unsupported by Facts has been the prolific source of all the mistakes *if* have prevaild in Physic.

Introductory Discourse

The Plan of
the work

In our further progress, we shall shew, — The Chymical Properties of *y* Solids & Fluids — The Structure of *y* Body, & particularly of *y* Blood-vessels, — The Powers of Circulation. — We then proceed to shew *y* manner in which external Substances act upon the Body; together with the difference of take place with regard to such effects in different Habits — We are then to enter on the nature of Diseases; begining with Fevers, & proceeding to Chronical Disorders — Under every Disease, we shall shew its Symptoms, Causes, progress, & in w^t manner if left to itself, it will terminate — We shall then shew its manner of Cure, & w^t Medicines have been apply^d for this purpose, & for w^t end they have been administered, whether to help, or imitate Nature, & which are of most eligibile — we are further to shew, w^t effects our Medicines will have, & in w^t manner they act, together with the Judgment w^t may be form^d concerning the termination of *y* Disease, we shall begin with shewing,

The Chemical properties of the Fluids
& Solids.

The Properties of y^e Solids & Fluids

In order to qualify us for remedy, y^e various disorders of body is incident to, tis necessary y^t we be properly acquainted with its structure, & with those alterations y^t take place within in y^e fluids or Solids in order to constitute a Disease: this cannot be done with^o an acquaintance with y^e chemical properties of both, & wherein a sound & healthy State consists — I shall therefore begin with shew^g you wherein a healthy, & diseased State of y^e body consist; & then give you the Chemical Properties of y^e fluids & Solids.

In order to health tis necessary y^t y^e fluids & Solids sho^d be endued with certain properties. — If a considerable quantity of putrid matter is contain'd in y^e blood, this constitutes a Disease call'd y^e Scurvy. — Next to y^e fluids being free from putrescence, tis necessary that they sho^d circulate freely thro' y^e Solids; if this circulation is impeded, the Body becomes diseased — Lastly tis necessary y^t y^e living Power of y^e body sho^d act to a certain degree, & in a proper manner; thus if y^e living Power sho^d not be sensible to external Objects, a Mania or Delirium takes place.

But very considerable alterations may take place in y^e Solids & fluids with^o any Disease being present: The blood may contain a very considerable quantity of Glee, so y^t y^e red Globules will not sink to y^e bottom, & yet no ill consequences will take place: A man may be less sensible to external objects at one time y^t at another & yet he may not be diseased. Slight alterations do not produce Disease.

The Chemical Properties of Blood.

In speaking of the Properties of Solids & Fluids, we propose to show — the Nature of various Fluids contained in the Body — The manner in which they are circulated — And the manner in which the living Power acts upon both.

We shall begin with the Blood.

This Blood we first extracted appears to be an homogeneous fluid, yet it is apparent it is not so. it is compounded of two different substances

The blood found mechanically mixed together, of red Globules & of Serum — these mix together in the same manner as oil & water, for if you shake these two together you

will give them the appearance of a simple Fluid, but on standing they separate, & the oil appears in globules of a larger or less magnitude interspersed thro' the water — This is the appearance of the red globules give we coagulate with the serum & examine by a microscope

If blood is taken from a strong man, you will find on its standing in a warm place that the red globules will sink to the bottom & the serum will float on top —

Again, this transparent part consists of two ^{substances} ~~fluids~~, the serum, & coagulable Lymph, in what manner they are compounded together is not quite so clear; but if they are two substances is manifest from this, if we separate this thin transparent fluid, from the red globules, & let it cool, then the whole will become solid, & at length there will come out a thin fluid from the sides of this coagulum; here is one part of it becomes solid in the heat of the atmosphere this is the coagulable Lymph, & the other which remains fluid in the heat, is the Serum.

The Chemical properties of of Blood

That the coagulable Lymph is different from of serum is further prov'd by of folg^d experiment, if you take a cake of red blood & wash it ~~in~~ in water of red Globules will be all wash'd away, & of coagulable part remains behind — This has been call'd also by of name of of glue & Buff of of blood; but to call it glue, is to confound it with a very diff^t substance sometimes found in of blood; & of word Buff is generally apply'd to signify some morbid state of of blood; so of of term coagulable Lymph, tho' not a very good one, must be retain'd for want of a better —

The Blood, then, consists of 3 parts, the red Globules, coagulable Lymph, & Serum; let us examine of properties of each a little distinctly.

But it is necessary for me to premise, if these several parts of blood are fluid in the human Body; fluid, as substances whose attraction of cohesion is less than their attraction of gravitation — we left to themselves, they always form spheres, but on of smallest pressure easily give way & change their figure; this is particularly true of of red Globules — In of same manner as oil & water, combin'd, if oil forms spheres of different magnitudes in of water, so do of red Globules swimming in the serum; nor can we conceive of their being spherical in any other method, for 'tis absurd to suppose that they acquire this form by rubbing against each other as solids; for such friction tho' it might take off their angles yet w'd never give them a spherical form, as is evident from of gravel stones found in of bottoms of rivers, which tho' deprived of their angles by friction

The chemical Properties of y^e Blood

yet are hardly ever found to be spherical.

Besides, w^h y^e red Globules enter into bespokes of smaller Diameter y^e themselves they change their figure & become oblong, & sometimes y^e separate into smaller particles & unite again, in y^e same manner as Laidsilver found on a Table will do. - Deceiv'd by this appearance, Lovenhook apprehended, y^e every red Globule was compos'd of six lesser ones w^h had a kind of rotation among themselves.

The fluidity of them depends on their being dissolved in water

That the serum & coagulable Lymph are fluid in y^e heat of y^e human Body is evident, from y^e fluidity of y^e blood in general; for if y^e coagulable Lymph was solid in y^e body, there cōd be no circulation perform'd.

The fluidity of y^e blood depends on its being dissolved in water, in y^e same manner as Neutral salts become fluid w^h dissolved in a proper menstruum - this is evident, for if you distill y^e water off in a heat not exceeding y^e of y^e human Body, you will leave a mass perfectly solid, nor is there any part of y^e mass remaining moist, as wōd be y^e case if y^e red Globules remain'd fluid - w^h we therefore give you the chemical properties of this substance ^{to be understood as} we are speaking of its solid parts.

Properties of the red Globules.

Mechanically mixt with y^e other parts

The red Globules are fluid in y^e human Body, whether they are so in y^e heat of y^e Atmosphere is not fully determin'd as yet by Experiment, but 'tis probable they are. They are mechanically mixed with the other parts of y^e blood; this appears, on examining them in y^e circulation by a microscope, where y^e are discover'd swimming in y^e other fluids & their particles at a distance from each other; this is manifest also, by their sinking to y^e bottom w^h taken out of y^e circulation.

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The Chemical Properties of y^e Blood

On expos^g them to heat, y^e water evaporates, & no alteration takes place till they become perfectly dry; on increas^g the heat, their chemical Analysis is perform'd; there comes into y^e receiver a considerable quantity of Impermeatic Oil, & some volatile Alkali & water, w^t remains in the Retort is Calcareous Earth, together with some Iron.

These Globules are of two different colours, a ^{in y^e veins} modena red, & a scarlet in the Arteries. It has been said, y^t y^e different colour prevail^g in the Arteries is owing to y^e blood being more diluted there than in y^e veins; but this can't be y^e case, for no dilution can form this alteration; the colours in themselves are^d different as green & blue — This alteration takes place in y^e Lungs by its exposure there to y^e air; w^h it is deprived of y^e air in y^e course of y^e circulation it assumes its original colour of blue.

That it is y^e air causes this alteration is evident, For if we take Arterial blood & prevent its being expos'd to y^e air by immers^g it in water it becomes of a modena red; & if we expose y^e venal blood to y^e air it will become scarlet. — Again, if we take a Dog, & cut open both y^e cavities of y^e Thorax so as to cause y^e Lungs to collapse, you will find y^e y^e blood which has pass'd thro' y^e Lungs is of a scarlet, but in those Arteries where it has not lately pass'd thro' y^e Lungs, it will appear of a modena red. — Again, if any Arterial blood lodges in y^e cellular Membrane, it becomes of a modena red. — So, y^e blood's simple exposure to y^e air, is the cause of this change of colour.

The chemical Properties of y^e Blood

Now w^t y^e alteration is, on w^{ch} this change of colour depends, we are not well acquainted with; whether there is a combination of some substance added by y^e air, or whether any part of y^e blood is dissipated, cannot yet be determined — Nor do I apprehend that the determining of this point is of so much consequence in Physiology as some have apprehended.

Lungs, their office —

Undoubtedly, this is one of y^e principal Offices of y^e Lungs; tho' not its only one, for it serves for y^e reoperation of y^e superfluous water mix'd with y^e chyle & w^{ch} w^d not be so conveniently carried off another way — It may be of service also to mix y^e serum & red Globules together; but this does not app^r to be of any great consequence.

Some have conceiv'd y^t y^e blood was rendered hotter by its passage thro' y^e Lungs, & others on y^e reverse apprehend y^t use of y^e air is to cool it: but neither appears to be y^e case, for y^e blood in the Thorax is exactly of y^e same degree of heat with that in y^e extremities.

The use of y^e air in respiration.

The Lungs are a large apparatus & of a remarkable structure, for unless they are inflated with air, y^e blood cannot circulate thro' them. This is evident, because y^e singular veins begin to swell as soon as y^e motion of y^e lungs is stop'd, & afterwards y^e swelling appears thro' y^e veins of y^e whole body.

It is to be further observ'd, y^t it is a peculiar kind of air y^e serves for respiration, & to form this alteration in y^e blood. — Fixable air, tho' equally elastic produces no such alteration. — Water answers y^e same end to Fish, their gills serving the office of Lungs, & there is an apparent alteration produced in their blood, tho' not to y^e degree as in Animals: probably this change may be owing to the air mixed with the water.

The Chemical Properties of $\frac{1}{2}$ Blood

Red Globules The red Globules are inodorous, & insipid, of a greater specific gravity than water, but of precise proportion is not ascertained; 'tis not quite so much as 15 to 10. — Much of $\frac{1}{2}$ Animal Economy has been accounted for by $\frac{1}{2}$ specific Gravity of $\frac{1}{2}$ red Globules; but $\frac{1}{2}$ difference between it & $\frac{1}{2}$ other fluids is too trifling to solve any Phenomena.

— of Acids All $\frac{1}{2}$ Acids change their colour to a dark brown, or black: at $\frac{1}{2}$ same time there appears a kind of Cradling, such as takes place in precipitation so $\frac{1}{2}$ it is probable they are decomposed by Acids. — The vitruolic, Nitrous, & muriatic Acids unite with them into a saponaceous mass, but in a dilute state they have $\frac{1}{2}$ same effect with other Acids.

— of Alkalies Fixed Alkalies render them of a dark Modena red. — Volatile Alkalies give them a florid hue. — All $\frac{1}{2}$ Caustic Alkalies form with them a saponaceous mass. — Neutral salts have diff. effects, instead of dissolving them they prevent their solution in water, & this is $\frac{1}{2}$ reason why they are prevented from being dissolved in $\frac{1}{2}$ serum. — Nitrous salts, & sal Armoniac render them of a bright red: some have supposed $\frac{1}{2}$ $\frac{1}{2}$ scarlet colour of $\frac{1}{2}$ Globules have been owing to these salts abounding in $\frac{1}{2}$ air & which are sucked in by $\frac{1}{2}$ Lungs; — but this is a wrong conjecture, because $\frac{1}{2}$ purest Air is most fit for respiration, & $\frac{1}{2}$ has none of these salts.

— Oils, alcohol. Express'd Oils have no effect on $\frac{1}{2}$ red Globules; Essential, & other oils give $\frac{1}{2}$ a brownish colour; Alcohol, has $\frac{1}{2}$ same effect, but wth alterations those substances produce, we don't know.

The chemical Properties of γ Blood

Metalline salts All Metalline Salts dissolved in water darken their colour, & are used in a very concentrated solution, form with them a blackish Mass, soluble in water. — Caustic Calcareous Earth forms a soap with them; but the other Earths have no effect either in their mild, or caustic state.

Earth

The red Globules unite with Water in any given proportion. They are very subject to putrefaction; they putrify much more readily than the Serum, but not quite so soon as γ Coagulable Lymph; the Serum is preserved by its Neutral Salt, otherwise it would putrify as readily as any other part.

Strength of γ
depends determined
by them.

The sinking of γ red Globules to ~~the~~ γ bottom in γ blood γ is exhausted, gives us a very good Criterion of γ strength with which γ vessels act; & is a proof of an Inflammatory Diathesis being present as well as the hardness of γ Pulse. — But γ we may not be deceived by appearances, γ follow^d Observations may be useful. — If we cool the blood too suddenly the Coagulum will not subside: for this reason, if the blood is drawn from a small Orifice, or if it trickles down the Arm there will no separation be made: on this acct. it is necessary γ a large Orifice be made, & γ γ blood flow in a full stream, ^{in order} to pass a proper Judgment upon it.

Again, if the blood be exposed to a very cold Atmosphere, & if γ vessel into which it is rec'd be large so γ a considerable surface be exposed to the Air, it will not separate. — On the other hand, if γ Ligature is made some time before γ operation is performed, γ blood will separate in γ Veins. — The reason why this shews γ strong action of γ vessels is, γ at γ time there is but little glue in γ serum, which would otherwise prevent γ Globules from sinking.

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The chemical Properties of y^e Blood

The next part of y^e blood to be treated of is the Coagulable Lymph.

This is divided in water so as to be fluid in y^e heat of y^e Body; this is evident for if we take a quantity of blood from a strong man, & keep it in y^e heat fluid in the y^e body, y^e red Globules will sink to y^e bottom, & y^e lymph will rise to y^e top perfectly fluid, I suppose its fluidity may be maintained till it putrifies. I have myself pursued it in this state for some hours.

Besides, if it was solid in y^e body it w^od not be possible for circulation to be performed.

If we apply cold to it, y^e solid parts are separated from y^e water & it coagulates & becomes insoluble in water; this takes place between 70 & 80 degrees of heat. — ^{Farmer's Thermometer} If we expose it to a certain degree of heat (abt. 120 degrees) it will also coagulate. w^h then separated from its water, it app^{rs} to adhere very firmly so as to form a viscid mass: but this is not a peculiar circumstance, for there are many precipitations where y^e powder is very fine y^e strongly cohere, particularly earth of Alum w^h becomes a hard stone.

On exposing this coagulum to a great heat its chemical Analysis is performed, it yields a quantity of Impure emetic Oil, some volatile Alkali & water. — If it is washed clean from y^e serum & red Globules there is no salt found in its alkali, but if taken immediately out of the veins, there is a quantity of Sea salt found therein.

In its natural state, it is found colourless & inodorous; the yellowish colour it often has, is owing to some substances y^e are entangled among it.

The Chemical Properties of Blood

Specific Gravity Its specific gravity is nearly of same with water, tis less than the solid part of of Serum - The coagulable Lymph & red Globules taken together are of of same gravity with of Serum; sometimes they are a little lighter & therefore swim at of top, & sometimes heavier & consequently sink to the bottom. — The bitridic, Nitrous, & Greenish acids dissolve it, & form at

The Acids it a black, saponaceous, solid mass, soluble in water. These acids diluted in water, & all other acids coagulate it; if diluted with 40 or 50 times their weight, they have but little effect. The coagulum formed by of acids is exactly of same with that which is formed by cold; both are insoluble in water.

Alkalies Mild fixed Alkalies have a tendency to coagulate it, i.e. they render it much sooner coagulable by heat or cold. — With volatile Alkalies has no effect,

but caustic volatile Alkali forms a soap with it. — Neutral salts, have no effect, if any tis to coagulate. — Expressed oils have no effect. Spirit of oil, Ether & Alcohol coagulate it. Sulphur & Metals have no effect. — Some

Metalline salts of of Metalline salts taken in a concentrated solution unite into a saponaceous mass; & greatly diluted they coagulate; Mercury mixed with 19,000 times its weight of water coagulates it. — The Metalline salts are of most powerfull Coagulants of any.

Earths Caustic calcareous Earth forms a soap with it; but of mild Earth has no effect. — Alum coagulates powerfully — Selenium & Magnesia have no effect.

If we evaporate the water from it in a very gentle heat, it will, with some difficulty dissolve again in of same water, but if a little too much heat is given we render it insoluble.

The chemical Properties of y^e Blood

It has been alledg'd, y^t ~~the~~ will coagulate in the human Body w^t not circulated with the other fluids, & then have been ~~two~~ experim^ts to prove this coagulation in Aneurisms. — 'Tis found sometimes coagulated in y^e cellular Membrane in Rheumatisms; also under y^e skin in Burns: but in y^e last case 'tis done by external Cold, tho' this can't be supposed to be y^e cause in y^e cellular Membrane & y^e Thorax, if the heat sh^d fall down to 70 Degrees.

We have some Instances to prove y^t it is not coagulable in y^e circulation, even tho' y^e motion of y^e fluids sh^d be very slow; this is evident in those Animals y^t spend several months in a state of sleep, as y^e Bear & others, tho' their blood at that time circulates very languidly, yet, it easily resumes its former briskness of circulation — Again, if we expose a member to extreme cold, so y^t y^e circulation is almost destroy'd, yet on proper warmth being administer'd, y^e blood pursues its course as freely as before? 'tis possible indeed, that there may be a fresh set of Capillaries form'd in the room of those y^t might be render'd imperious; or 'tis probable y^t y^e blood might be almost wholly expell'd out of y^e capillaries by y^e cold.

Upon y^e whole it is a matter y^t admits of doubt, whether y^e Lymph will coagulate in y^e body in a state of rest, or whether there may not be some peculiar circumstances y^t sometimes take place which render it insoluble in water; this is a point which requires some further Enquiry to determine

The Chemical Properties of γ Blood

of γ Serum The Serum like γ other parts of γ blood, is fluid in consequence of its being dissolved in a quantity of water. If we expose it to a considerable degree of heat, γ solid part, like γ coagulable Lymph concretes into a solid mass, & becomes insoluble in water; this is performed in abt. 150 degrees of heat.

Chemical Analysis If γ heat is still increased, its Chemical Analysis is performed; & we obtain Impermeatic oil, volatile Alkali & water; if the Mass is previous to this squeezed perfectly dry there remains only calcareous Earth in the Residue. But if γ watery parts are not pressed out, we find a quantity of sea salt mixed with the Ashes.

its Coagulum If we expose γ serum to a degree of cold below γ γ freezing point, then the water is separated, & it becomes solid. — If we expose it to a 100 or 120 degrees of heat, then the water evaporates & leaves a mass resembling gum Arabic which is soluble in water. This substance is perfectly colourless, insipid, & inodorous; by true indeed, sometimes it appears a little yellowish, but this depends on other matters mixed with it; nor is it always insipid, on acct. of γ Mucous salts γ may be mixed therewith; but if we free it thoroughly from γ Glue & Neutral salts, it will be both colourless & insipid.

Specific Gravity The specific gravity of γ Serum is somewhat more than that of water.

Effects of other Substances on it The bitartaric, nitrous, & mucous acids combine with it into a viscid, blackish Mass, but they must be applied in a concentrated State; w^o diluted with water, like all other acids they will coagulate, & precipitate it from γ water, & render it insoluble therein: but if γ acids are greatly diluted, they will have no effect, hence it is, γ some kinds of Vinograd will not coagulate it.

The Chemical Properties of Blood

- Alkalies** Fixed Alkalies tend to coagulate of Serum, but not powerfully. Volatile Alkalies in its mild state has no effect — but all of Alkalies in their caustic state unite with it so as to form a soap, & if even if they are diluted with a considerable quantity of water; they combine by 1st method of saturation, so if of solution will dissolve about 4 times its weight of Serum, & no more.
- Neutral salts** The Neutral salts have rather a tendency to coagulate it, & have this effect when apply'd with heat; they are otherwise soluble in its watery part; so if this water dissolves Serum & Neutral salts exactly in the same manner as it dissolves two Neutral salts.
- Oils** Refined oils have no effect; all other kinds coagulate it, Essential oils least powerfully, & Ether most effectually. Alcohol is also a powerful
- Metalline salts** coagulant. — The Metalline salts if dissolved in a small quantity of water will unite with it into a saponaceous mass; these combine with it by 1st method of saturation, so if they will only unite with a certain quantity of Serum. — But if these salts are considerably diluted, they will only coagulate it, but if very powerfully, & in dilute solutions.
- Earths** Caustic calcareous earth combines with it in the same manner as if caustic salts, but in its mild state has no effect. — Selenites & Imguisias rather tend to coagulate it: Salt & earth of Rhum powerfully coagulate it.
- How united with water** Serum unites with water by 2^d method of saturation, you may unite a drop of Serum with a pint of water, but only a certain quantity of water will unite with the serum — Any quantity of water may be mixed with it. This is not a chemical, but a mechanical union.

The Chemical Properties of Blood

Part of it water appears to be united chemically, & another part mechanically; if the whole had been mechanically united, then, the whole of it water would pass thro' of filter of it urinary Papes, as it is if can with it. is only mechanically united — We shall find if there is another fluid, if mucus, if has this property of uniting but with a certain quantity of water. Serum, as well as if other parts of it blood is liable to putrefaction, tho' it is in some measure preserved by it Neutral Salts; w^h then are taken away, if coagulable part putrefies as readily as any of the other substances.

There is always found in it Serum, particularly when it vessels, act nearly
 - its Glue a substance like Glue, this is it first stage of putrefaction, & at gives a colour both to it Serum & it Urine.

There is always dissolved in it water of it Serum a quantity of Neutral Salts, sea salt, Sal ammoniac, & Phosphoric Ammoniac; the exact proportion of these we do not know, but it quantity is considerable — These are obtained by coagulating it Serum & then evaporating its water, w^h it salts will crystallize

Other substances
found in it Blood
Earth & Iron

Besides these, there are other matters contained in it blood vessels; there is a quantity of Calcareous Earth, together with some pieces of Iron; these are chiefly found in it coagulable part of it blood & in the Urine. — Besides these, a variety of other substances may occasionally

- Acids

be introduced into it blood vessels — It has been a question whether Acids could be thrown into it blood in any considerable quantity; but some may be introduced as is evident by it secretion of Urine, if takes place w^h a considerable dose is thrown into it stomach, whereby it Kidneys are stimulated

The chemical Properties of Blood

Volatile Alkali There is a quantity of volatile Alkali found in Blood; but fixed Alkalies cant be well introduced there, as they detach if volatile Alkali in if Stomach. — tis true, this decomposition does not immediately take place, so if it may act on if Stomach for some time before if combination is formed. But it can hardly remain any time in if blood vessels with! unitg with some other substance.

Neutral Salts Neutral Salts may get to if blood in considerable quantities; this we know by Sea salt, which is not generated in if human body; we find it also in Animals as they are taking it in with their food.

Essential Oils Essential Oils may get into if blood, as they are secreted by if Urine as if Urine act strongly. — tis objected to this, if we never find any Oil in if blood vessels; but this is no proof, for we cant see it in Milk, tho' the whiteness thereof depends on if oil if. is mixed therewith.

Essential oils Essential Oils are also introduced there, as is apparent by their evaporating with if water by if Lungs. — **Alcohol** Alcohol may be thrown in to a considerable quantity as is apparent from if same experiment.

Metalline & Earthy Salts Metalline & Earthy Salts may get in there; but Marine Salts cannot; because they woud decompose if Ammoniacal Salts & unite with their Acid.

Solutions of Vegetables Solutions of Vegetables such as if solution of Gum Arabic may enter the blood vessels. **Vegetable Pungers** are also introduced there, as is evident by a Child's being purg'd by a dose taken by if Urine only. — But all if Vegetable Juices if are thrown into if Stomach cant enter if blood in if form: for a considerable part is destroy'd by if Fermentation in if Stomach; a small quantity only

Of the Fluids formed from of Blood

can pass there unaltered, along with of Chyle — These are the substances usually found in the blood vessels.

Of the Fluids secreted from of Blood

Of the Formation of Chyle

In order to of formation of food into Chyle: it is in of first Place, masticated & broken by of Teeth; it afterwards dissolved & mixed with of gastric fluid in the stomach; but it is not yet form'd into Chyle — Flower & water may be thus mix'd up, but it differs from Chyle in all its properties — it must undergo a change

By Fermentation

this is performed by Fermentation; this is not done at of same time, for one part may be ferment'g, while another is dissolv'g.

We are not certain, whether of first fermentation is of of Acid kind; we are sure however of there is an Acid generated; but we are not fully acquainted, wth particular sort it is of, whether it is Vinous, or some other Acid.

This Acid is however destroy'd by of Bile in of Duodenum, part of which unites with the Acid & destroys its properties. — The whole forms another fermentⁿ in of Intestines, which produces Chyle, which is afterwards convey'd to of blood vessels.

The Principal Properties of Chyle

We have not been able hitherto to discover of process by which Chyle is form'd, but of Properties of this Fluid we are well acquainted with, as it is of same which is secreted in of Breasts of Females, & is call'd Milk ^{there}

The same wth Milk

That Milk & Chyle are of same fluid, is probable on many Accts; for of quantity of Milk depends on the quantity & kind of food wth of female has eaten; a considerable quantity of food forms a great deal of Milk, but an abstinence from food produces a scarcity of Milk. — Again, milk contains many of of properties of of Food, but none of of Blood; it contains a quantity of Essential Oil if it is found in the food, but it contains nothing of of

Of the Fluids found from y^e Blood

Serum, coagulable Lymph, or red Globules, but a small quantity of Neutral salt, & a great deal of water, together with y^e earthy matters which have not been converted to Chyle.

The properties of y^e Milk or Chyle are as follows; this fluid consists of three parts mechanically mix'd together; ~~the~~ ^{the} oil or Butter, the coagulable part, & the whey, which is water mix'd with sugar — two of these parts rarely separate on stand^g, y^e oil & y^e water, in separating Cream is form'd, which is y^e oil join'd with some earthy matters; we commonly make use of a particular method to separate y^e oil from those other matters join'd with it, but this is not necessary, for if we set the Cream in 100 degrees of heat, y^e oil will rise to y^e top quite pure; viz. y^e solidity of y^e oil in y^e heat of y^e Atmosphere ^{is evident} y^e tenderness of common process suffices.

The milk separated from its oil consists of a solution of two substances in water, y^e coagulable matter & y^e sugar.

The Coagulable matter is always present, but y^e sugar is found in great or less quantities, & from some instances of milk putrifying without turning sour we may conclude y^t it sometimes is not found.

We may obtain y^e sugar of milk in y^e following manner; we must first coagulate y^e milk to obtain the whey; this must be purified from any Musilaginous matter y^t may be in it by y^e white of an egg; afterwards y^e water is to be evaporated; & as there will be still a quantity of Mucilage left, this must be destroy'd by y^e addition of Quicklime.

This sugar is exactly y^e same with common sugar in all its properties.

Of the Fluids secreted from y^e Blood

Properties of y^e
Coagulable part

The Coagulable part is dissolved in water, & is by y^e means removed fluid; if y^e expose it to a considerable degree of heat we coagulate it, but not in y^e same manner as y^e Serum, unless it be removed somewhat lower.

If its separated with a boylg heat, it is not readily soluble in water.

This coagulum is not to be separated by cold, for if we freeze milk it still remains undecomposed — 'tis colourless, insipid & odorous. — On exposing

it to a considerable degree of heat, its analysis is performed, it yields Empyreumatic Oil, water & Volatile Alkali, & in its ^{are contained} after, tartarous Earth.

The Vitriolic, Nitrous, & muriatic acids unite with the ^{coagulum} milk in their concentrated states as they do with the Serum; diluted with water they coagulate it, but not unless they are assisted by heat, which must be applied to go on 100 degrees.

Alkalies in their caustic state unite with it, but have no effect in a mild state. — Neutral Salts also, have no effect.

Expos'd, or any other kind of Oils have no effect — Alcohol coagulates it w^h assisted by heat. — Metallic Salts coagulate it, but not nearly so much as they do the Serum — Alum, & Aluminous Salts coagulate it.

It is perfectly soluble in water in any proportion whatsoever. It is found in much greater proportion in its water, than the Coagulable part is found in y^e Serum.

This Coagulable part is formed by y^e Alteration made upon the food in the Stomach.

Some have conceived, y^t y^e Saliva, y^e Gastric & Pancreatic Juices contribute to make a part of this Coagulum —

Of the Fluids secreted from y^e Blood

But this is a mistake; it differs considerably from y^e coagulable parts of either of those fluids. — 'tis probable this substance is form'd during the time y^e y^e chyle is circulat^d in y^e blood before; the oil is partly thrown out into y^e cellular membrane; & y^e principal alteration necessary to convert it into serum is, to render it insoluble in water.

The Serum is probably y^e first Fluid form'd out of y^e chyle, & y^e coagulable Lymph & red globules are afterwards form'd from y^e serum; for we find y^e w^h y^e vessels are evacuated, the serum is much sooner form'd than the other fluids.

We now come to y^e last class of Fluids, those secreted from the Blood. These may be divided to two classes; those that are simply separated from y^e blood; & those that are form'd ~~in it~~. W^hever we find a fluid secreted y^e contains the same Properties with those found in y^e Blood, we suppose this is a simple secretion. As for Instance, the Urine consists of water, a quantity of Mineral salt, together wth some portion of earth & Glue. Now since all these substances are contain'd in y^e Blood, we suppose that y^e Urine is no more than a simple secretion from y^e Blood.

But on y^e other hand, w^h we find in y^e secretory Organs a fluid different from w^h is to be found in y^e Blood, we apprehend this must be form'd in y^e secretory Organs themselves. — Thus we find no Bile in y^e Blood, nor any substance containing its properties; but it is found in considerable Quantities in the Liver, where it is form'd by some Chemical Change taking place, for no mechanical one can produce it.

The Fluids y^e are simply secreted from y^e Blood are, the Perspirable Matter, Sweat & Urine; these are secreted by Evaporation & Filtration.

Fluids secreted
 from y^e Blood divided
 into two classes,
 one separated from
 the Blood, and
 those form'd in it

Fluids by secretion
 Perspirable Matter
 Sweat & Urine.

Of the Fluids secreted from ye Blood

— Form'd out of
of Blood are Saliva
Pancreatic Juice & Bile

The Fluids form'd out of ye Blood, are, ye Saliva, Pancreatic Juice & Bile these are form'd by Filtration & Fermentation — There are several other fluids form'd by particular Glands, such as ye bitter substance form'd in the Liver, w^{ch} has been call'd wax, & which some have suppos'd to be soluble in Oil, but this is a mistake, water is ye Menstruum y^e will best dissolve it.

The matter form'd by ye sebaceous Glands, & ye semen, are other fluids form'd by particular Glands, y^e properties of w^{ch} we shall not at present enter on.

ye perspirable matter

The perspirable matter is separated by evaporation. we may investigate the substance of this fluid *a priori*, by considering w^{ch} parts of ye Blood can be evaporated, the red globules, coagulable Lymph, the serum & ye Neutral salt are none of them volatile in the heat of ye Body & therefore cannot pass this way.

ye unperfected of

But Arguments of this kind are greatly liable to fallacy, therefore we must depend on those taken *a posteriori*, or by examining the Properties thereof.

This matter is easily condensed & collected by breathing into a long Tube or Receiver, or by placing ye limb in close vessels — On examination

tis found to be water, with a small quantity of mucilaginous matter, not at all putrid; tis putrescent or dispos'd readily to putrify, but as it comes from the body tis not putrid, but this is a property it has in common with all dilute solution of Mucilage, as is manifest in rain water — There is also, a small proportion

of ye Essential Oil of ye Body mix'd with it; this is evident, because Dogs will trace particular animals by their scent, & w^{ch} have peculiar Essential Oils, as is manifest by their different flavors of their flesh — These are y^e properties we sh^d have expected *a priori* to have met with in it; And if we place Blood in the heat of ye human Body we shall obtain exactly the same fluid w^{ch} is the perspirable matter.

Of the Fluids secreted from y^e Blood

Some have apprehended, y^t this matter contains some very acrimonious qualities, & y^t w^h it is obstructed it causes a variety of Disorders.

But so innocent a fluid can't be productive of such deleterious Effects.

Besides, in cold Climates where this Perspiration is almost totally obstructed y^e Inhabitants instead of being loaded wth diseases, are y^e most healthy & vigorous — And in this Country, persons by gradually exposing y^e selves to cold, may stop Perspiration wth any inconvenience, whereas y^e sudden expose of y^e body to cold may be attended wth y^e most fatal Consequences.

With regard to y^e quantity of Perspirable matter y^t evaporates, it depends on the circulation of y^e blood on y^e external parts, & is various in proportion to y^e degree of y^e circulation there — I apprehend, 'tis as great in moderately hot as in very sultry climates, tho' the evacuation by sweat is much increased in y^e latter.

The Perspirable matter may contain other substances besides those already Enumerated; y^t Essential Oil or Alcohol are thrown into y^e circulation being rendered volatile by y^e heat of y^e body, they fly off in this manner: thus Onions w^h eaten, affect the breath strongly, their oil evaporating this way.

The Urine is separated by filtration, w^h is done in y^e following manner,

The Vessels of y^e kidneys being smaller than the Capillaries, therefore admit of only y^e finest Fluids to pass thro' them, such y^e Urine on examinⁿ app^r to be

It consists of water in w^h are dissolved common Salt, Sal Armoniac, and Phosphoric Armoniac; it contains also a quantity of Glue y^t is very rare Nature y^t y^e Doctors use, Calcareous Earth & Calx of Iron together wth a substance of y^e same properties with coagulable Lymph.

Of the Fluids secreted from the Blood

The Lead & Iron form of sediment of. takes place on Stand; & if coagulable Lymph forms of. Cloud w^{ch} is dissolv'd & suspended therein. — Now an all Substance w^{ch} we find in of Blood, & therefore they are carried off by Filtration — But this is a proof of these Substances were not Minerally combin'd wth of wine, for if they were, they w^{ou}d not be separated by Filtration.

Other substances occasionally found in Blood Besides these substances there are frequently small ^{quantities} of express'd Oil especially in fat Persons, & those whose vessels act strongly; this is manifest by a Petecle & a ring round of upper part of of Glass — It is objected if there is no express'd oil found in of blood vessels; this is easily ^{accounted} for by of oil being latched down in the Circulation, in of same manner as by shaking Oil & water together in a vial, if oil w^{ill} totally disappear

This is manifest also in distill'd water w^{ch} contains a quantity of of Oil of of Plant it was distill'd from tho' it is not visible to of Eye. — where there is a large quantity of Oil in of Blood, as in whales, there is easily discern'd

There is no Fluid of differs more from itself than the Urine, this is principally caus'd by the different degrees of contraction in of Tubule of of Kidneys & of quantity of Action in of Blood vessels.

The Causes of the diff. Appearances in the Urine

Transparent Urine

If the Vessels of of Kidneys become much contracted, then some of these Substances of us'd to pass thro' them, will be prevented — The Urine will remain perfectly transparent as it will contain neither the coagulable Lymph nor the starchy

Col'd Urine

If they are still more contracted the Urine will not only be transparent but also colourless, the glue which gives it the colour being not able to pass thro' of straiten'd Passages; it will consist of water with Neutral salts.

with 30

Bloody U

Urina luv

Sharrow head in of

Of the Fluids secreted from y^e Blood

10th the Filter becomes larger than in its natural state, a considerable quantity of Coagulable Lymph & Serum passes with the serum & there is a large Sediment deposited — 10th it coagulates in heat apply'd, & not in y^e common heat of y^e Atmosphere, tis a proof that there is a quantity of y^e Serum contain'd therein

10th the Kidneys become still more relaxed, the whole of y^e Blood passes thro' them

The force of y^e Heart & Arteries whereby y^e Blood is propelled to the Kidneys makes a very considerable alteration in y^e state of y^e Urine.

for w^h there are act^g strongly, a great quantity of Coagulable Lymph together with the powdery matter are forc'd thro'; thus in Pleurisies & Rheumatisms we have frequently y^e kind of Urine which is call'd *Urina Sumentosa*. But w^h y^e Heart & Arteries are act^g weakly, the urine is usually in a natural state; for y^e want of force in these is made up by y^e laxity of the Kidneys.

Another difference arises from y^e state of y^e Blood; if there is a considerable quantity of water float^g in the Blood, it many times is secreted with y^e addition of any of the other parts of y^e Blood. — Again, it differs accord^g to y^e degree of putrefaction prevail^g in y^e Blood, w^h on that act^g abounds more or less with a quantity of Glue, & from w^h y^e Urine derives a higher Colour; & w^h a considerable part of y^e red Globules are dissolv'd by y^e prevail^g putrefaction, the Urine puts on a blackish Appearance

It is further to be observ'd, y^t many extraneous Substances thrown into y^e Urine are carried off by y^e Urine, as Grits, or Glauber Salts &c. Sometimes thro' general weakness, or some particular causes, the Mucus of the Bladder comes off in the Urine & forms a Sediment, this may be distinguished from

Of the Fluids secreted from y^e Blood

the Coagulable Lymph, for y^e mucus has a fleshy appearance, whereas the other resembles Wool. — If there is any Pus in y^e Lymph it also comes off by Urine, but this is easily known, by its forming an soon sediment & disturbed the transparency of y^e Urine.

These are y^e properties of y^e Urine w^{ch} in all Diseases we pay great regard unto, as it shows us the strength of y^e Aeteries, y^e state of y^e Kidneys & Bl^{adder}.

Sweat

— separated by y^e
same hole w^{ch} y^e perspiration
matter

— by filtration

composed of y^e
same substance w^{ch}
the Urine

The next Fluid y^e is secreted by Filtration is the Sweat; this differs very little from y^e Urine — It is separated from y^e Blood by a number of holes w^{ch} pass thro' the Seraphim into y^e Capillary Vessels; these are visible to y^e naked eye, or at least with some small Assistance. There has been much dispute whether the insensible Perspiration was secreted by y^e same Organs w^{ch} y^e Sweat, but the dispute is needless, as the one is separated by Inspiration, & y^e other by Filtration, w^{ch} may be done thro' y^e same Vessels. — The sweat consists of y^e same substances with the Urine, with this addition, y^e there is a much greater quantity of Essential Oil in the sweat, w^{ch} overcomes its acridous smell.

There are a number of Sebaceous Glands w^{ch} secrete a fat Oil mixed wth an essential Oil which mix wth the sweat; this is particularly to be observed in the Armpits.

w^{ch} degree of putrefaction
known in y^e fluids

It has been asserted y^t none of y^e Fluids of y^e Body ^{are} at all putrid. — To determine this point, we must distinguish Putrefaction into three stages, the first is, w^{ch} the fluids are converted into a fluid, this frequently takes place in the Body. The second stage is, w^{ch} the Fluids become flatid, this seldom takes place in the Circulation, but is frequently found in the Cavities of the Body; thus the Urine, sometimes putrefies so as to be in a small degree flatid, & so does Pus. In the last stage a quantity of volatile Alkali is generated, this never takes place in

Of the fluids secreted from y^e Blood

the Body; tho' there is always a slight degree of putrefaction going on there, and is continually thrown out by y^e outlets of the Body. But to return from this Digestion — The sweat is sometimes not at all secreted, & at other times in a small quantity; sometimes it contains only a small quantity of Oil, & consists almost totally of water; & sometimes the whole of y^e Blood has proceeded thro' the Pores of y^e skin. — If y^e Blood is putrid, so y^e red Globules are dissolved; y^e blood mingled with y^e sweat stains the Linen of a darkish brown colour.

As the sweat & Urine are y^e same, so they are y^e same purposed to carry off the Salts, & to prevent the Glee from being accumulated in too great a quantity in the Blood — they supply each others defect, so y^e if one is increased, the other is lessened. — One of these secretions must be carried on, or a disease is produced; but it is very seldom y^e Kidneys are so obstructed as not to make such a discharge as to prevent the Blood from putrefying.

If there is no sweat at all, y^e skin which is moisten'd only by means of this fluid cracks, & small Inflammations come on. The temp^r of y^e has been suppos'd in warm Countries, by insensible Perspiration, is principally by means of sweat; for Insensible Perspiration is pretty near the same in moderately warm, as in very warm, Countries.

We now come to y^e Fluids y^e are form'd out of y^e Blood by Filtration & Fermentation, these are, the Mucus, saliva, Pancreatic Juice, & Urine. To begin with the Mucus — This is a fluid y^e is secreted in different parts of y^e Body, by different Glands which ^{have} follicles belonging to them, soth thro'.

secreted in diff^r
quantities

Supplies y^e
defect of urine

a deficiency of
inflammations

Fluids form'd
out of y^e Blood

y^e Mucus

of the Fluids secreted from y^e Blood

when secreted out this fluid on the membranes where they are contained; whereby they are lubricated, & defended from Irritation. — This fluid is very different w^{ch} it is first secreted, from w^{ch} it is afterwards w^{ch} thrown out of y^e Glands; it's first little more than water, with a small quantity of coagulable Matter, & Mucous Matter, but afterwards it becomes a very viscid fluid. — By experiments made w^{ch} it appears to be composed of water, Neutral Salt, coagulable Lymph together with a small quantity of y^e Serum. — On cooling, it loses its transparency & condenses, w^{ch} shows y^e it contains a part of y^e coagulable Lymph. — Upon standing in y^e follicle of y^e mucous Gland, the water is in a great measure absorbed together wth the Neutral Salt, so y^e y^e coagulable Lymph remains with a small quantity of water: here it undergoes a further change by Fermentation so y^e it becomes a viscid substance. — On exposing it to y^e heat of body water, it coagulates; a little degree separates it from its water. — On increasing y^e heat its chemical Analysis is performed & yields exactly the same principles with the other parts of the blood. — It's colourless, insipid & inodorous, & its specific gravity somewhat greater than water. — The Vitriolic, Nitrous & Muscivorous Acids coagulate it in a concentrated state; the Caustic Alkalies form with it a soap; Acids & Oils have no effect.

The effects of different substances on it

Its difference from the Serum

It differs considerably from y^e Serum & coagulable Lymph, in its coagulation, for it will not coagulate under 200 degrees of heat; cold will not coagulate it. It differs also with regard to its solubility in water, for after it is dry'd it may be dissolved again in y^e same quantity of water & no more. — This alteration in its state parts whereby it differs from y^e fluids out of w^{ch} it was composed must happen either by solution, precipitation or Fermentation, but here is neither menstruum nor Precipitant, & therefore it must be by Fermentation.

Of the Solids secreted from y^e Blood

This fluid, as was observ'd, covers the Membranes & defends them from y^e stimulus of y^e Neutral Salts; if this sh^d happen to be wash'd off, a Disease must take place on y^e Gut; & this is to be particularly attended to in Diseases, for it may happen, as in y^e Dysentery, y^t y^e Disease may be continued by y^e Neutral Salts irritating y^e membrane thus depriv'd of its natural covering —

The Saliva & Pancreatic Juice are y^e same with the mucus, only y^t they have a quantity of Neutral Salts together with a considerable quantity of water. They contain a coagulable part, w^{ch} coagulates in y^e same degree of heat wth that of y^e Mucus, but not so insoluble in water as y^e fluid — The glands by w^{ch} they are secreted have no follicles, & y^e change y^t happens in them takes place while they are runn'g thro' y^e excretory Duct into y^e Mouth & Intestines — Their use is to act as Menstruums for y^e Food; & this end they ans^r. better than water w^d do, because their viscosity prevents y^e food from being left dry, as this fluid is not so readily absorb'd by y^e lymphatics.

The last fluid to be taken notice of is the Bile — This is form'd by a large Apparatus; in y^e first place the blood is circulated in large quantities thro' the Intestines, when it is depriv'd of a considerable part of its Serum w^{ch} is taken up by y^e Lacteals, so y^t there is a large proportion of red Globules contain'd therein w^{ch} bro't back to y^e Liver by y^e Ven^a Portarum w^{ch} joins ~~it in the formation~~ of an Artery. — Some imagine y^t y^e Bile is form'd in the Intestines, but this is not found to be y^e case, for y^e blood contain'd in y^e Ven^a Portarum cannot be distinguish'd from any other, except on account of y^e quantity of red Globules it contains — We first met with the Bile in the V^{en}a Bilialis & the Hepatic Duct; how these are united with the veins, we do not know.

Of fluids secreted from of Blood

We find of Bile in of Hepatic Duct mix'd with a considerable quantity of Serum, it passes from thence into of Gall bladder, where it loses a quantity of its Serum & is render'd much more perfect; tis here render'd much bitterer & more viscid; but its viscosity is not glutinous like of Mucus but rather of an Oily Nature — this viscosity depends on its solid part being mix'd with a small quantity of water. This matter is solid in of common heat of of Atmosphere & requires considerable heat to melt it; but w^h the water is evaporated no coagulation

Chemical Analysis takes place. — 1st its chemical Analysis is perform'd, it yields exactly of same principles with the other parts of of Blood, except of it affords a much greater quantity of Oil than either of them. — It is of a sweetish bitter taste, & of a yellow colour; of nearly of same specific gravity w^h water.

Tis capable of putrefaction in of same manner w^h of other parts of of Blood & w^h putrify'd is extremely fetid, but if it is depriv'd of its water it does not putrify so readily. — Acids decompose it, combining w^h one part while they precipitate another; w^h is thus precipitated appears to be a resin or oil w^h agrees in all its properties with essential Oils, but possess of a peculiar smell, tis soluble in Alcohol, & will come over with it in Distillation — This gives of colour to of Treas — with regard to of other part w^h unites with acids, tis but small in proportion to the former; its properties are not thoroughly investigated.

Sometimes of Bile is mix'd with some coagulable matter so of it forms runny concretions in of Gall bladder. — Caustic Alkalies form a soap with it; mild Alkalies dissolve in it; other substances have no effect, except it be some of of metallic salts w^h decompose it in of same manner with Acids. — It unites readily with water & Alcohol in any proportion.

Of the Fluids secreted from y^e Blood

From w^h has been said, it is probable, y^t y^e Bile is chiefly form'd out of the red Globules, not only because there is a large proportion of these thrown into y^e Liver, but it also agrees with it in many of its properties, particularly in its inflammability, & it disagrees with y^e properties of y^e serum & lymph.

It is probable y^e Bile is form'd by Fermentation, as it cannot be form'd either by solution or Precipitation, & as it is no where found but in y^e Liver.

Y^e of y^e greatest use in y^e Animal Economy, tis necessary to digestion by destroy'g y^e Acid in the food, it also stimulates y^e intestines to eject the faeces — w^h it is not separated, y^e Animal soon dies for want of Nutrition.

Some have suppos'd it to be a kind of Natural Soap, to render y^e Oil miscible with y^e other part of y^e Food; but this cannot be y^e case, as it contains a very considerable quantity of Oil itself, & therefore can't be a proper substance to combine oil with other substances.

Having thus finish'd y^e chemical properties of y^e Fluids, it may not be amiss to add a word or two concerning the properties of y^e Animal Solids.

The Solids consider'd chemically consist of Membrane & Cartilage — Bone is no more than Cartilage harden'd by y^e deposition of a quantity of calcareous Earth in its vessels; if this is reabsorb'd as is sometimes y^e case, the Bone becomes Cartilage again; both of these agree in their chemical properties with the coagulable part of y^e Serum — They are flexible & elastic, but differ from each other in their properties; y^e Cartilage beg vastly more elastic than the Membrane, but not so flexible, these Properties are alter'd by y^e application of different substances, Earthy substances renders them more elastic & less flexible, but oil & water render y^e more flexible — In young subjects they are more flexible & less elastic, but the reverse prevails in aged Persons.

Of the Circulation of y^e Blood

Of the circulation of the Blood

Two kinds of
Circulation
one of Arteries
and Lymphatics

There are two kinds of Circulation of y^e Fluids thro' y^e containing Solids of we
are to take notice of; The first whereby y^e Blood takes its rout from y^e Heart
thro' the Arteries & Capillaries, to y^e Veins & so back again to y^e Heart; the
other is by y^e Lymphatics to y^e Thoracic Ducts & thereby to the Veins.

The Heart is a hollow Muscle contain^g two Cavities; ^{call'd Ventricks} from one of w^{ch} the Blood
is thrown into y^e Lungs & being bro't back again to y^e Heart, it is from the other
Ventricle distributed in all y^e parts of y^e Body.

Of the primary
Circulation
particularly in
the Capillaries

The Arteries are cylindrical vessels w^{ch} carry y^e Blood in a direct course to the
Capillary Vessels; after they have proceeded to some distance from y^e Heart, they
begin to join one another & form a set of Anastomosing vessels; these branches some-
times take place in larger vessels, but in general not till the vessels become extremely
small — they form by this division a fine network of vessels; but its divisible,
y^e y^e branches are sometimes larger than y^e trunks they proceed from, & sometimes
a small tube opens into another small one, at other times a large vessel opens into
a small one — Again, the Blood in these vessels is not carried in an uniform
motion either to, or from y^e Heart, but it runs to y^e Heart in one direction, &
from it in another; & these vessels are so connected with each other, y^e y^e Blood
might pass from Head to Foot, with^out entering any other kind of vessels.

not uniform

Again, in the Arteries, the Blood has an equable motion suitable to y^e Action
of the Heart, but this is not y^e case in y^e Capillaries, its motion is very unequal
sometimes faster, & sometimes slower; sometimes run^g with great velocity in one
Tube while it seems to creep in another: but in general, the blood circulates faster
in the Capillaries than it does in the Arteries.

Of the Circulation of y^e Blood

The veins terminate in these Capillaries in y^e same manner as the Arteries do, & anastomose among themselves in y^e former. — Tho' the motion of y^e blood is not determin'd in y^e same set of vessels, yet y^e blood generally circulates in such a manner thro' the capillaries, y^t there is an equal quantity thrown out by them in a given time as there was thrown into them; tho' this is not always the case.

The next thing we are to take notice of is, the quantity of Blood capable of being contain'd in these Capillaries. — but before we proceed, it may be necessary to explain w^t we mean by y^e fullness of y^e vessels — we say a vessel is full wⁿ it is round & there is no empty space found in it; & we call a vessel empty, wⁿ it lies flat & there is a void space therein.

Now we assert, y^t in this sense of y^e word, y^e blood vessels are always full, they are always cylindrical & have no void space left in them — if we examine a superficial vein, we always observe it to be of a cylindrical form, tho' it is sometimes much less than ~~it is~~ at other times.

But tho' y^e vessels are always full, yet they may be capable of containing a much greater quantity of blood than they actually contain. — Thus for Instance, if we examine a vein in y^e Hand wⁿ it is cold, & afterward expose it to a degree of heat, we shall find its size greatly enlarg'd, & therefore that it contains a much greater quantity of Blood; in the same manner if you look at y^e capillary vessels in y^e eye, you will find them always to be of a cylindrical form, but they are sometimes much larger than they are at other times. — Again if you throw into y^e stomach two or three pounds of water in which Gum Arabic is dissolved, it will be easily contain'd by y^e blood vessels.

Another Argument to prove this is, from y^e various dimensions of different parts of the body at different times. — If you heat the Hand you will find it to be

Of the Circulation of the Blood

considerably swell'd; now this increase of size must arise either from a dilatation of $\frac{1}{2}$ solids, or from an increas'd quantity of $\frac{1}{2}$ fluids; but it woud require such a degree of heat to increase the size, ^{of solids} to one hundredth part as woud absolutely destroy y^e Limb; it must therefore arise from a greater quantity of fluids deriv'd by y^e stimulus of y^e heat to y^e part.

3^d Experiment

Lastly, If you take y^e most plethoric Animal & kill it in such a manner as not to shed a drop of blood, yet upon opening it, you will find the Arteries empty, the veins will also be collaps'd & almost empty; now, as the blood cannot be annihilated, it is evident y^e the size of these vessels were much less in y^e living Animal than they are w^h dead, & therefore that they can contain a much greater quantity of blood than they do at any time in a living state; or in other words, y^e y^e blood vessels have a power of contraction, so as to adapt themselves to y^e quantity of blood they contain, so y^e no void space is found therein.

Of y^e force of y^e propelling powers

of the Heart

The next thing to be consider'd is, the force by which the blood is circulated. The first force by w^h y^e blood is propell'd is the Action of the Heart.

w^h the blood rushes into y^e Heart by actⁿ on its internal surface it causes it immediately to contract, by which contraction it is forced out again ^{thru} the Arteries — this is evident, for if we pour some warm water into a Heart recently taken out of y^e Body, it will contract itself. — By this contraction tis thrown into y^e Arteries, with a force y^e will raise it 3 or 4 feet high, & w^h will drive

But not sufficient of itself

it into y^e Capillaries — but this is not a force sufficient to forward its circulation thro' y^e Capillaries; this appears in y^e case of Persons affected w^h the Palsy where the vessels are considerably weaken'd, here, a much less quantity of blood circulates thro' the Capillaries: the Pulse therefore here is not a sufficient Indication of y^e degree of Circulation, for the pulse may

Of the Circulation of y^e Blood

be pretty considerable, wth the smallness of y^e vessels, & y^e whiteness of the part shew y^e want of Circulation there. — But this point is further confirm'd by y^e following Experiment, If we cut an Artery of a living Animal & introduce a Tube into y^e end next the Heart, y^e blood will be forced thro' y^e Tube to a perpendicular height equal to y^e force of y^e Heart apply'd in carry'g on y^e circulation. Let another Tube be apply'd to y^e other end of y^e Artery & a fluid pour'd into it from y^e same height to wth y^e blood ascended, & wth by its descent will acquire the same force wth y^e Heart; this fluid will circulate thro' y^e vessels.

But if we cut off y^e Limb from this Animal, you will find y^e this force is not sufficient to carry on this Circulation, altho' it perform'd it wth the part was living. This shews y^e there is some force besides y^e of y^e Heart, & wth depends on the life of y^e Animal, necessary to carry on the Circulation. — We will suppose however, y^e the Heart has a sufficient Power to circulate the blood thro' y^e Capillaries, but 'tis to be observ'd y^e y^e blood does not circulate thro' the various parts of y^e body in equal quantities wth wou'd be y^e case if y^e circulation depended merely on the force of y^e Heart. For suppose y^e whole quantity of blood circulat'g in y^e vessels to be twenty Pounds, & y^e the hand is $\frac{1}{20}$ part of y^e body, there must therefore by this proportion be a pound of blood ^{always} circulat'g thro' y^e Hand; but this is not y^e case, for sometime 2 or 3 pounds are thrown into it & sometimes not one pound is found there.

If we examine the Action of y^e Heart wth the Hand is hot or cold, we shall find its motion nearly y^e same, & if it was not, yet tis not possible for it to vary so much as to throw such an increas'd quantity of blood to any particular part of the body. If there was no power act'g besides the Heart y^e blood must flow equally thro' the whole body.

Of the Circulation of $\frac{1}{2}$ Blood

3^d Proof

This is further proof by of Observation, if where of resistance is the same, yet of circulation is different — Thus in of instance already mention'd to, is evident, if of increas'd quantity of blood in the Hand is not owing to the resistance being taken off; for of resistance is caus'd by of contractile force of of vessels, & of friction of the blood against their sides; neither of them is remov'd for of friction must always subsist in of circulation, & of contractile force of of vessels instead of being less'd is greatly increas'd by heat or any other stimulus whereby a quantity of blood is deriv'd to of part. — there must be some other power therefore, besides the force of of Heart to effect of Circulation thro' the Capillary vessels.

propels. Now this power can be no other than the action of 4th Arteries themselves, we have a power to contract & dilate themselves in of same manner as the Heart does: 10th the Heart acts if Arteries are dilated, & while the Heart ceases to act they contract themselves

— not perform'd & by y^e means preclude y^e blood forwards
by their elasticity. It has been supposed y^e this is perform'd by y^e elasticity of y^e Arteries, w^{ch} wth they
were distended like other elastic vessels contract themselves & by y^e contraction push
the blood forwards. — But their elasticity will be so far from forwarding the motion
of y^e blood, y^t it will rather retard it; for they can apply no more force in their
contraction than the Heart has lost in its dilatation, in y^e same manner as a spring
will bond as much one way as it has drawn the contrary. — Besides, the pressure
in an elastic vessel is greater ~~in an elastic vessel~~ than in a non elastic one;
Water will pass much more readily thro' a leathern tube y^t is not elastic than one
y^t is made so. — Besides if the contraction of y^e Arteries was caus'd by their
elasticity this is a power y^t w^old act equally after y^e Animal was dead, as while
it was living, & consequently we sho^d find the vessels full after death, w^{ch} is not
y^e case — Further, y^e elasticity is constantly endeavouring to dilate & not to contract
the vessels; for suppose you tie a Leathern Pipe w^{ch} is elastic with a ligature so

Of the Circulation of Blood

if it becomes smaller than its natural size, on cutting of Ligature of Tube will Enlarge itself to its former size; in of same manner of Vessels in the dead Animal Enlarge themselves to a much greater Diameter than they had in a living State. — It appears therefore, that they are contracted by some Power of depends on the Life. — We know that there are several parts in of Body which have a power of contracting themselves, some voluntarily & others involuntarily; some of these parts have red fibres in them, & others have not — The skin of of Serotum, for example, has no muscular fibres in it & yet it contracts itself greatly. — In the same manner of Blood Vessels have a power of contraction which does not depend on the will, nor is it any material objection if they have no muscular fibres in them.

Now, when the Blood is thrown into of Arteries it stimulates them to contraction in of same manner as it does the Heart, as soon as this contraction is made, like all other parts endow'd with a muscular power, they dilate themselves again, and this elasticity assists them in this dilatation & if this is of case is manifest from this, when any considerable quantity of Blood is thrown into a certain part, of contraction & dilatation of of Arteries of of part is always in proportion thereto, the Pulse is considerably increased — thus if you expose your Hand to a certain degree of Heat whereby a quantity of Blood may be deriv'd to of part you will find an increase & pulsation in the fingers, of Arteries dilate & contract to a greater degree.

We are not certain whether the Capillaries are endow'd with any other powers to promote of circulation ~~we cannot fully determine~~, tho' it is probable they are, for we cannot so easily throw an Injection by of Veins into of Arteries in a living Subject as in a dead one, tho' we can with great ease pass an Injection into the Veins by of Arteries.

Of the circulation of y^e Blood

Having thus consider'd y^e manner in w^{ch} the blood is circulated thro' the Solids, we come next to consider y^e manner in w^{ch} the quantity & force of this Circulation is to be measur'd: this is done by y^e Contraction & dilatation of the Arteries form'g y^e Pulse.

In the first place, y^e number of strokes given by y^e Heart is shewn by y^e Pulse. In grown Persons y^e number in general is about 72, more or less in diff^t Subjects, In young Persons tis quicker, in children it beats from 100 to 110 strokes in a minute.

W^{ch} there is a great many strokes in a minute we call it frequent, but w^{ch} there are few, we call it a slow pulse.

Another thing shewn by y^e Pulse is, the quality of y^e motion of the Heart. W^{ch} the Pulse takes up equal times between the strokes, we call it regular; but if the space is not equal, tis irregular; & if a stroke is omitted it becomes an Intermittent Pulse.

The Pulse further shews y^e Strength of y^e Heart's contractions.

If the Artery rises strongly under y^e finger so y^t you can hardly compress it, this denominates the pulse to be strong; but if you can hardly lay your finger on the Artery wth stop'g its Pulsation, we call it a weak pulse.

The quantity of Blood thrown out by y^e Heart, is measur'd also by y^e Pulse, If from being considerably contracted the Pulse dilates to a great degree, the Heart throws out a large quantity of Blood, this we call a full Pulse; But if there is only a small distention of y^e Artery this shews y^t there is but little Blood thrown out in a given time, this we call a small Pulse.

The next thing measur'd by y^e Pulse is the Action of the Arteries themselves. If the Pulse goes off wth a Thrill like y^e touch of y^e String of a Musical Instrument we call it a hard Pulse, this is felt in the beginning of y^e contraction; this is y^e most difficult to distinguish, but at y^e same time a certain sign & of y^e greatest importance.

Hard, Soft

Of the Circulation of Blood.

But if there is a softness to its Touch, as if we felt some woolly substance, this is call'd a Soft Pulse. — The extremity of the hand, is the redoubled pulse where we have two strokes of its Artery for one of its Beats; & its Extrem of the Soft, is its trembling Pulse.

The Pulse also shows, its Strength or weakness of its Artery. — The Irritability of its Artery is shown by its immediately Contracting after its dilatation; there is a much greater distance betwⁿ its end of its Contraction & its dilatation, than there is betwⁿ its dilatation & contraction — this is Quick pulse, w^{ch} is carefully to be distinguish'd from its Frequent Pulse.

The Fullness or Emptiness of its Arteries is also shown by its Pulse.

If the Artery contracts & dilates but to a small degree, this shows there is but a small quantity of blood in its Vessels; but if its dilatation is considerable & its contraction not so great, this shows there is a large quantity circulating there.

If there is but little difference between its contraction & dilatation we call this an Oppos'd Pulse. — If the blood passes with difficulty into its capillaries, its Pulse is very slow, & seems to go off with difficulty, this constitutes an Obstructed Pulse; this is very different from its slow pulse, for here the dilatation is greater than the contraction — but where the contraction & dilatation are equal, it shows its blood passes readily into its capillaries, this is therefore call'd a free Pulse — the former of these is felt in its cold fit of Fever, & its later in the hot fit.

We have now only further to shew, its Variety of its place in its Circulation. We have already observ'd, its blood circulates differently in different parts of its Body; we must further take notice of its difference between its circulation on the External & internal parts — Some times two thirds of its blood circulates on the external, & at other times there is as large a quantity circulating on the internal parts.

Of the Circulation of Blood

10th the blood circulates in a considerable quantity on the surface of the body, the excrements well, & perspiration is freely carried on; but w^{ch} it circulates chiefly in the internal vessels, & m^{ost} secretions are in the greatest quantity

Any difference may take place in this respect with respect to health provided the change takes place gradually; but it is seldom suddenly made without bringing on a Disease. — If the blood is thrown suddenly from the external to the internal parts, it produces a Disease; but if it makes a quick transition to the internal parts, the Patient faints, & sometimes dies.

2^d variety

The next variety to be observed is, if the blood is contained in different quantities in several parts of the blood vessels — sometimes the greatest quantity is contained in the Arteries, at other times in the Capillaries, & at other times in the Veins — These varieties may take place with any disease consequent thereon; tho' such a disposition of the blood may render persons liable to particular diseases. — Thus children are liable to the Rickets in consequence of the blood circulating chiefly in the Capillaries, & old persons are liable to the Gout in consequence of the blood circulating chiefly in the Veins.

Of the Secondary Circulation

by the Lymphatics

Lymph & Serum thrown into the cellular membrane

We next come to show the circulation thro' the Lymphatics w^{ch} depends on the primary Circulation of the blood

In the capillary vessels there are placed certain holes, whose form we can't with certainty describe, whereby part of the Serum, ^{& coagulable Lymph} ~~passes~~ out into the cellular Membrane from the regularity of this secretion we are inclin'd to imagine that there must be some kind of Organization whereby these Orifices have a power of contraction & dilatation. — The Serum does not remain in those cavities, but is again taken up by the Lymphatics; these are like Tubes join'd to each other, with Valves plac'd

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Of the Circulation of Blood

at each end, & which at length terminate in the Thoracic Duct, this Duct proceeds to the left Subclavian Vein into which it opens by a valve.

The Fluids are thrown into the cavities of the cellular membrane by the ordinary force of the circulation, the action of the Heart & Arteries; & if these are acting strongly 'tis not uncommon to find some of the red blood thrown into these cavities. Some have conceived that this blood is taken up by the Veins; but if we suppose that the Veins have such outlets, the blood would run out of them into the cellular membrane; nor will it be sufficient to say that there is a valve placed at the end of the Vein to prevent this ill consequence; for there must be a power to force this extravasated fluid into the Vein which must overcome the action of the Vessel, or else it could never absorb it.

This Power of Absorption of Lymphatics are endowed with, & no others, & with this power it could never take up the extravasated fluid; for tho' a capillary Tube will fill itself, it cannot empty itself of the fluid with the same peculiar Organization. — It has been supposed, that if the first Lymphatic was a capillary Tube would absorb the fluid, & if by the pulsation of some adjacent Artery the fluid was pressed out of this into the next Tube, or if the pressure of some Muscle acting upon it produced this effect. — But it would be a point of dangerous consequence to leave so important an affair as the action of Absorption is, to chance, or the casual operation of the Muscles. — Besides, we find that this absorption goes on where there is no adjacent Artery or Muscle, & also where the Muscles are in a state of rest — Muscular motion has very little effect upon the Blood vessels; so if we cannot conceive that Absorption can be carried on by this manner.

The manner I conceive of it is this, The end Lymphatic as a capillary fills itself full, as soon as the fluid touches the sides of the Vessel it causes it to contract,

absorb by the Lymphatics. — how done

Of the circulation of Blood

Endow'd with a
Contractile power

by which it protrudes its contents to of next capillary, & so on. That these lymphatics have such a contractile power is manifest, because you can discern of chyle pass thro' of Lacteals with an easy motion, when there is no pressure made upon them by of Intestines — Besides, they are sometimes larger & sometimes smaller like of other blood vessels; they also lose this power at death & appear flat. — If this circulatⁿ depended on accidental pressure, Dropsies w^d be much more frequent than they now are.

Some have conceiv'd of there are lymphatic Arteries existing, terminat^g in capillary vessels, & these also in Worms — but this is not the case, for of capillary vessels may be so dilated as to have of red blood circulat^g thro' them, w^{ch} sometimes is the case, tho' they commonly only circulate the Serum & Lymph. — Some apprehend of of white of of eye is a proof to of contrary; but the whiteness of the eye does not depend on its hav^g only of serum circulat^g thro' it, but on a very different cause, for of red blood circulates here as well as in other parts.

By this second circulation, of blood is not only distributed to all of different parts of of body, but of membranes are prevented from grow^g together their surfaces being always kept moist; Nutrition is also maintain'd by fresh additions being made to of outside of of vessels, where they chiefly receive their growth. We next come to consider,

The Powers depending on the Life.

Of of powers depend^g
on of Life of of body

We have already shown the chemical properties of of fluids, together with those Properties which depend upon the Structure of of Body; but there are other Properties belonging to it w^{ch} do not depend upon its Structure, as the Sensibility of of Body — there can be no connection between of Structure of of body & of mind, as no particular Structure can form an Idea, for tho' the Nerves communicate the sensation, it is not material whether of mind ^{forms} of Idea in of brain, or receives it from some external part.

Of the Powers depending on the Life

We are now to shew the Principles of depend on the life of the body, the first of these is its Heat. — The Body is not like inanimate matter which receives different degrees of Heat from its surroundg Atmosphere, for where be its heat of its Atmosphere, its heat of its human body is always the same, this is 98 degrees of Fahrenheit's Thermometer in all seasons & climates.

10th we speak of its heat of its body, we mean its relative heat, or its relation it bears to its Atmosphere; in this respect it may sometimes be cold in summer & hot in winter, as its heat is either less, or exceeds its of its Atmosphere. As its heat of its body is its same, so it is not possible to alter it with^{out} producing a disease — We must observe, its its surface of its body may be in some measure alter'd by its cold of its Atmosphere, but then it is only its surface its is liable to this change, for blood taken from its Arm is always 98 degrees of heat

Again, its Heat is its same in all parts of its Body; water taken out of the Thorax is found to be of its same degree of heat by its Thermometer as w^h placed under the Tongue — But the heat of its body differs in different Animals; thus a Hen is found to be of 104 degrees, a Pidgeon is of 108 degrees, whereas an Ox has not more than 90 degrees. & there are some snakes its live in warm climates whose heat does not exceed 60 or 70 degrees.

But tho' the heat of its Body is the same in all its various changes of its Atmosphere, yet some inward causes may form an alteration therein.

First, w^h the action of the blood vessels is increas'd, there is a degree of heat generated. This is the case in considerable muscular motion, but its increase here is trifling. In Fevers, the heat is increas'd to 104 degrees, & in Inflamm^{ation}, to 108 degrees.

Again, w^h a considerable quantity of blood is made to circulate in any particular part, by its application to its Stomach or any external part, the heat is increas'd there. — The exercise of certain Passions, as courage, generate heat.

Of the Powers dependg on the Life

Difference betwⁿ Quantity & Degree of heat generated in the Body
 Sometimes there is a considerable Quantity of heat generated w^h the degree is not at all increas'd — thus, w^h the Body is surrounded by a cold Atmosphere w^h is continually by its application to y^e body diminishing its heat, there is a considerable quantity of heat generated to maintain it in y^e same state of warmth. — Again, the body does generate a greater quantity of heat sometimes than it does at other times; in muscular Exercise the quantity of heat is greatly increas'd, tho' by y^e application of the Thermometer the degree appears to be y^e same: whereas in sleep there is but a small degree generated.

Now during the time y^e Body is in health, tis the Quantity rather than the degree of heat y^e is generated; but in a diseas'd state, the degree of heat is heighten'd — Agreeable to this, the sensation of Heat w^h a Person feels after Exercise is very different from y^e w^h is rais'd by a Fever.

And as a Fever increases, so sometimes it lessens the degree of heat; thus in the cold fit of a Fever, y^e heat does not exceed 94 or 96 degrees.

The next thing to be enquir'd to is, by w^h means is this Heat generated or destroy'd.

There have been two methods whereby this has been attempt'd to be accounted for. First, by Friction — It has been thought y^e rubbing of y^e Blood against the sides of y^e vessels ~~produces~~ y^e means of generatg this heat. — But this is impossible, for no fluid, however great its specific gravity w^h rubb'd against a solid will generate the least degree of heat.

2^{dly} Others have supposed this heat to be rais'd by Fermentation.

Of the Powers depending on the Life

But this also cannot account for this Phenomenon; for tho' it is true if Fermentation does generate Heat, yet it cannot be prov'd if of fermentations carried on in the body have this effect. — The putrefactive fermentation does generate heat before it comes to its last degree thereof, but we do not find if this is the case in Animal substances, as there is no heat observ'd in putrifying Bodies, as is well known to all conversant in dissections.

The Chylous fermentation may possibly generate heat, but this is going on in different degrees at different times, whereas if heat of if Body is always of same & therefore cannot depend thereon. — besides, w^h heat is generated, we do not know manytimes if any fermentation is carry'g on. — further, the heat rais'd by fermentation is increased or lessend by the heat or cold of if surroundg atmosphere; this is manifest in horse dung whose heat is much greater in summer than in winter; but this is not if case with if heat of if Body w^h is always the same.

Besides, fermentation cannot generate cold as well as heat, w^h if Body has a power to do; if only mechanical means of generatg cold we are acquainted with is by if evaporation of water in if Atmosphere, or if solution of some Neutral salts in water; neither of w^h can take place with regard to if Body. — It is true indeed, if hotter if Atmosphere is, if greater if evaporation of water from if Body; but we cannot suppose if in that case if effects wou'd be always equal; for if quantity of vapor rais'd from if Body is at sometimes double the quantity it is at other times, & hereby there ought to be double the degree of cold generated, w^h is not if case.

This power of generating Heat or cold, does not depend upon the structure, but the Life of if Body; w^h the powers of Life are actg strongly, the Heat is greater, but w^h if Organs are actg weakly, the Heat is less.

Of the Powers depending on the Life

But in hot Countries, if we heat the body, the hotter it is. — It is but lately we are become acquainted with if Power of body has to generate cold — It was formerly thought of if Body could not subsist in an Atmosphere whose heat was greater than its own; but we now know of: in some Countries where the Thermometer rises to 108 degrees in if shade, if body is still 98 degrees of heat.

Of Sensibility & Irritability We come in if next place to consider if properties of Sensibility & Irritability which also depend on the Life of if Body.

Sensibility, is if property, whereby if any particular Substances are apply'd to if if body, they excite certain Ideas in the mind.

Irritability, is if property whereby w^o any external Substances are apply'd to particular parts, there will be some motion produced either in that, or some other part of if body.

Parts not sensible All parts of if body are not sensible; for Instance, a Bone is insensible, for if you apply any external Substance to it, this will produce no sensation in if mind — A Membrane is also insensible — In Amputation, you produce no sensation in cut of thro' some parts.

Prin & most universal Cause of Sensation Any Part if: produces any kind of sensation, is capable of if sensation of Pain, & some parts are sensible of pain that have no other kind of sensation; Thus if Intestines, & Excretory Glands. — There are also means of producing pain in some parts which will not produce pain in any other; thus a large quantity of Light thrown on if Eyes will excite if sensation there, & there only.

Distribution of pain Distribution, will produce pain in any part of if Body if it is capable of pain, tis if most universal Cause of pain, & every part is capable of distribution except the Bone — If distribution is excepted, if Membranes, the Blood vessels, the Ligaments, the Muscles, are not capable of pain, except where the little Twig of a nerve runs into them — The Excretories of if Glands of if mucous membrane are capable

Of the Powers depending on the Life

of pain by any substance if it will either mechanically or chemically destroy them, & also by such as stimulate them.

There are other parts of ^{the} Body if it are capable of other sensations, as the Eyes, Nose, Mouth, Skin, & if Stomach — some have indeed denied if the Stomach is capable of ^{any} sensation but if of pain, but Hunger, Cardialgia, & Sickness &c are very different sensations.

Every part of if Body may become sensible by disease — Inflammation renders every part of if Body sensible, & increases the sensibility of those parts if it was so before. A Membrane may be thus very sensible of pain.

If any substance is apply'd to a part to excite some peculiar sensation, if apply'd to a great degree, it will excite pain — thus if a large quantity of volatile Alkali is apply'd to if Palate, you have only if sensation of pain.

The sensibility of if Body may therefore be greatly increased or diminished, a small quantity may be made to excite different sensations from what a large quantity would do. Inflammation, Weakness, living in a warm Climate increase if sensibility; whereas, Strength & Cold decrease it — we can also apply certain substances w^{ch} decrease if sensibility, wine & Opium are endowed with this effect.

It is a point of some importance to enquire, whether sensibility & Irrisibility are the same; or whether there must be an Idea exist^{ing} in if mind, w^{ch} will cause it to act on any particular muscle to produce a contraction?

Muscular motions are divided into Voluntary, & Involuntary; the voluntary are such as depend on the will & are directed by it, but if involuntary, such as if motion of if Heart &c more independent of any volition.

Some, indeed, assert if those involuntary motions were originally caused by if exertion of if will, & that now they continue to act in consequence of a habit contracted for if purpose.

Of Powers dependg on the Life

Some motions are
independ^t of the mind

It appears clearly from Experiment, if there are motions in the Body totally independent on the will, & w^{ch} continue even after the Life of the Animal — thus, if you take the Heart of an Animal just kill'd, & pour warm water on it, this will cause it to contract — also, if you cut off a Limb, & preserve it warm, on applyg any Stimulus, there will be a contraction in the Muscles, tho' tis evident, if the Sensibility is lost — Again, if you throw in a small quantity of Emetic Tartar into the Stomach, w^{tho'} the knowledge of the Patient and so as not to make him sick, it will cause a considerable quantity of Blood to circulate on the Surface of the Body, in w^{ch} case tis evident there can be no concurrence of the will — tis apparent therefore, if Sensibility & Irritability are totally different from each other.

All motion in
consequence of contractⁿ

3 contractile parts

Now, all the parts of the body w^{ch} are capable of motion, are so in consequence of the contraction & relaxation of those parts, or their fibres being made shorter or longer. — These contractile parts may be divided into three, tho' perhaps they are originally wth joined — Muscular fibres, w^{ch} in general are of a reddish colour; the Skin, in which no muscular fibres have been as yet demonstr'd; & the blood Vessels, these appear to have some muscular fibres in w^{ch} they are discover'd none such in the smaller Vessels, tho' they also have the same contraction. — perhaps the contraction of these parts depends on muscular fibres forming their structure, but this we are not able to demonstrate.

Contractⁿ maybe
produced by external
Applications

These Parts may be made by the external application of substances to contract or relax themselves. — Suppose the Muscles of the Arm are spasmodically contracted; if Ether is apply'd to the Skin, it will frequently remove the contraction. It is not necessary if these substances sh^d be apply'd immediately to the part where the contraction or relaxation is to be form'd, they will produce this effect wth

Of Powers dependg on the Life

apply'd at some distance — this either is to be apply'd to y^e skin & not to y^e Muscles y^rselves. — Smell's Tantar apply'd to y^e stomach will produce a discharge of sweat thro' y^e pores of y^e skin. — Or if you prick a single fibre of y^e Heart, the whole will contract.

The next inquiry is, w^h are those Parts of y^e body which by y^e application of Substances, form a contraction? — these parts we call Irritable

Now, all y^e contractg Parts are not irritable. — as for Instance, if you lay bare an Intestine & prick, or apply volatile Alkali to it, you will produce no contraction therein. — but apply this Alkali to y^e skin or stomach you will find this effect taking place very sensibly.

The Irritable parts of y^e body are, all the sensible parts, such as y^e skin, stomach, Intestines, Excretory Glands, y^e organs of y^e senses & y^e Nerves.

Besides these, the Muscles, w^h are not sensible, are irritable — The Blood vessels are only irritable to one particular Stimulus, w^h is Distention.

The other Parts such as y^e Membranes, Tendons, Ligaments & y^e Bones are as destitute of Irritability as of Sensibility: — but Inflammatⁿ will render all those parts sensible, & all Dr Haller's opponents, have either bro't Instances of experiments made on parts made irritable by Disease, or have prick'd some Nerve in makg of y^e experiment.

We find y^e all parts of y^e body are Irritable & sensible, where irritability & Sensibility wou'd be of any service; but to render y^e Ligaments & Bones sensible & Irritable, wou'd be to expose us to convulsions every step we take.

The more closely we examine y^e structure of y^e body, the more perfect we shall find it to be.

It may be further observ'd, y^e all parts are not equally Irritable — thus y^e stomach is more irritable than the skin, & those substances y^e sensibly affect, y^e one will not the other.

Of Powers dependg on the Life

Some more accurately, Again, some Parts are more accurately irritable than others, & are capable of producing a greater variety of motions in y^e Body. — Thus Volatile Alkali apply'd to y^e Stomach will produce a glow of heat thro' y^e body, & increase y^e action of y^e vessels — On the other hand, Acids thus apply'd have y^e contrary Effect. — Essential Oils produce an equal peristaltic motion of y^e Intestines. Opium destroys y^e irritability of y^e Stomach, & much increases y^e strength of y^e motion, but not y^e degree of it.

It was y^e observatⁿ of these Facts y^t made Van Helmont adopt his notion of the Spiritus Ruchus. — We are at a loss to conceive how medicines produce these different effects on the Stomach, but we have reason to think y^t y^e greatest part of y^e medicines are apply'd do produce their Effects by some Alterations perform'd by them on the Stomach.

The Irritability of y^e body may be much increas'd, particularly by Inflammⁿ. living in a warm Climate will also greatly promote it, w^{ch} is y^e reason why Diseases do so much abound in those Countries.

Weak Persons are much more irritable than strong men; in great weakness, y^e a Person does but walk across y^e Room, y^e Heart is irritated to quicken Contractions,

— On the other hand, living in a cold Climate, & strengthⁿ of Constitution greatly destroy irritability. — There are some Medicines w^{ch} also decrease it, the Bark particularly. w^{ch} apply'd to y^e Stomach will lessen y^e irritability.

Every substance y^t we apply to an excitable part to cause a contraction or a relaxation are distinguish'd by y^e name of Stimulus.

It is further to be observ'd, y^t y^e Irritability is greatly affected by Custom or Habit. If we apply any Stimulus, so as to produce a certain action, y^e Stimulus increases in y^e power, so y^t a smaller quantity will afterwards produce y^e effect.

Of Powers depending on the Life

Thus an Emetic being apply'd to *the Stomach*, if it is soon administered again, a less quantity will serve, which may be continually decus'd & yet of same effect produced. — This is only true concerning *the sensible parts of the Body*, for a great many substances lose their effect by a constant application, & even with regard to *the sensible parts themselves*, if substances are given in small quantities so as not to act powerfully, their operation on those parts afterwards will not be so easy. — Thus, if Emetic Tartar is apply'd to *the Stomach* in small quantities so as to excite a sweat with a Nausea, if several quantities must be increased to produce of same effect — In of same manner, if Cold is apply'd to *the Body* in a small degree it will produce no disease; upon a frequent repetition of this application, *the Body* may by degrees be habituated to it greatest, & even to undergo great changes with^{out} producing any ill effects.

By of repetition of of action of a stimulus on *the Body* we not only increase of power of of stimulus, but we may cause it to recur with^{out} any stimulus. — for Instance, suppose a Person accusom'd himself to sleep from 10 to 6, if of Person is awak'd for 2 or 3 mornings at 5 o'clock, he will then awake with^{out} any noise apply'd for of purpose — If a Person is accusom'd to go to stool at a particular Hour, he will always experience a motion at that Hour, whether he has any Secret to discharge or not. — If a Person is accusom'd to dine at a certain Hour, he will always find of sensation of Hunger abt. of time. — Even the brute Creation has a sort of with many surprising Instances of this kind; the Horses us'd at of waterworks at Versailles w'd go the number of rounds necessary to raise of water; but con

Of Powers depending on the Life

Here some defect in the Engine a few more rounds became necessary to raise the water, if Horses could not be bro't to take one more than their accustomed number. —

Habit causes an Action to recur with little or no stimulus

Habit produces powerful effects on the human Body, & manifestly not only continues, but also brings on diseases afresh when in some measure removed.

If any Action of the Body is produced with considerable Violence, & this is frequently repeated, a Habit is contracted, so that a very small Stimulus will reproduce the Action — Thus, if enormous vomiting is by any means produced, you cannot give the slightest Emetick without exciting it with very small Violence. — Nay more, if a violent Action is repeated a few Times, it will be reproduced for a considerable Time without the help of any Stimulus.

— Hence it is, that many Diseases having been only twice produced, have afterwards recur'd without any manifest cause.

the power of continuing the Body in the same state

Custom or Habit is a power of continuing the Body in its present state, it is in this, if a Person is accustomed to sleep a great many hours, he will require a great period of rest; but if he habituates himself to a small quantity of sleep, this will be sufficient for him.

Let us next consider the manner in which Habits are destroyed.

The manner in which Habits are destroyed

This is most effectually done by counteracting the Habit, or applying some Power which will act contrary thereto; thus if a person is accustomed to awake at a certain Hour, the exhibition of an Opiate for a few nights will destroy the Habit.

But it must be observed that if several Habits are counteracted at the same Time the Person will be greatly in danger of falling into some disease.

It is very strange, that the changing of one Habit will be by means of changing another also which is connected therewith — thus, if a Person contracts a Habit of going to bed at 12 & of supping at 10; if he should change his hour of going

Of Peculiarities belonging to several Stages of Life

& sup at 11, he will not find himself disposed to sleep at his usual hour.
— And this alteration takes place w^o there is no connection between two actions besides w^h Habit gives them.

W^h Habits are changed, if body becomes more irritable, this is of reason why Persons w^h they change climates, if they change their manner of living also, are subject to fall into Diseases.

Thus are of effects w^h Habits have with respect to of sensibility & irritability of of human body.
we come next to consider,

The Peculiarities w^h take place in the different Stages of Human Life.

Life is usually divided into 4 different Stages; Infancy, Youth, Manhood & Old age, each of w^h have peculiarities belonging to them whereby they become liable to certain Disorders w^h take their origin therefrom.

The Peculiarities incident to Infancy decrease very fast, inasmuch of a child of a year old is much more subject to them than one of two years — Between two & three years there is but little difference, they continue however gradually decreasing thro' childhood till that of youth commences, w^h is usually about 21 years — The Peculiarities incident to youth increase to of age of 27, w^h they gradually decrease till of Person arrives to of age of 30, w^h Manhood commences — Manhood continues till of age of 45, w^h old age begins, & from those changes in of body that are peculiar to it.

Infancy or childhood is subject to of following Peculiarities

In the first place, of Blood contains too great a quantity of Serum, & of Serum abounds with too much water.

Of Peculiarities belonging to different Ages

2^d peculiarity 2^dly The Capillaries are much more numerous in Children than in grown Persons. This appears evidently by Injections; & also by y^e plumpness of y^e Flesh w^{ch} depends on y^e capillaries being many of y^em full of Blood —

3^d peculiarity 3^dly The Capillaries are much larger in their Diameter in proportion to their size than those of men, so y^e fluids readily pass thro' them, in consequence of w^{ch} secretions take place more readily & in a greater degree than in Men — The Arteries are also larger in proportion in children; whether the veins are so, has not been as yet determin'd.

4th peculiarity 4thly The Body is vastly more Irritable in Infancy than it is afterwards. A small degree of any stimulus affects it, so y^e every medicine acts more powerfully & y^e Pulse render'd much quicker. — This Irritability does not depend upon y^e size of y^e Body, for a large Man requires no greater dose to act upon him than a small one does. — It is in consequence of this Irritability, y^e Medicines do not have their peculiar Effects, but all kind of Stimuli act in y^e same manner. This disposition is still more manifest in children not up in town. Every stimulus produces quickness of y^e Pulse, w^{ch} easily brings on Convulsions.

Besides, these motions y^e are thus excited are not so tenacious in Children as in grown Persons, for in them as soon as y^e cause is remov'd, y^e Effects Cease.

Peculiarities of Youth

The Peculiarities of Youth arise from a particular cause, which is this, while the Child is growing up there is a quantity of Muckinous Juice form'd for y^e nourishment & growth of y^e Body, therefore the digestive powers are strong but w^{ch} y^e Body is grown to its full size y^e digestive Powers continuing as before there is a quantity of Blood generated which not being transform'd to Solids as before, there arises too great a fulness of y^e Vessels, which renders Persons of this Age more subject to Hemorrhages & Inflammations than any other age.

Of Peculiarities belongg to different Ages

of Manhood

In Manhood, if Body is supposed to arrive to its most perfect state. It is now more accurately Irritable, so if Medicines produce their proper effects & no other — But it is very liable to be subject to Habits, w^{ch} wⁿ once acquired adhere very tenaciously, & in removg of w^{ch} if Body is very liable to fall into ^{some} Disease.

of old Age

In old Age, the Capillaries become much fewer than in Manhood, & in consequence thereof if Body decreases in its size — The Arteries also diminish in their size & lose their contractility, but as the Veins do not decrease in Proportion, the greatest part of if Blood is contain'd in the Veins — The Body in consequence herof becomes liable to many Diseases; known Hemorrhages frequently arise, & as a large quantity of Calcareous Earth is deposited in if blood Vessels, if Gout & Stone take their rise. — In old Age if Body becomes vastly less irritable, so if all applications made to it produce nearly if same effect; the Pulse becomes much slower, & the Intestines lose a great measure of their peristaltic Motion.

of Temperaments

of Phlegmatic

of Sanguine

of Choleric

of Melancholic

It sometimes happens if if peculiarities of Childhood continue with Persons thro' if whole of life, as with many women, whose capillaries are numerous & large, & whose Bodies are Irritable, this forms a Constitution distinguished by if name of Phlegmatic. — In others, if Vessels act strongly, & digestive Powers are good, w^{ch} are the peculiarities of youth continue. This forms the Sanguine Constitution — In others, if Irritability is peculiar, & at if same time if Vessels are very elastic; hereby if Choleric Temperament is formed — Lastly, Others have their Arteries elastic, their Capillaries few, & if Blood contain'd chiefly in if Veins w^{ch} are the peculiarities of Age, continue with them thro' if whole of life, this forms if Melancholic Temperament.

Of Peculiarities belonging to different Ages

'Tis but seldom y^t we meet with Persons where either of these Temperaments fully prevails, most partake of two or three of them tho' one or y^e other may appear to predominate.

Idiosyncrasy

There are also particular dispositions of body y^t prevail in some w^{ch} we are at a loss to account for; thus Opium does not produce sleep in some Persons, as it does in others — Some Persons require a cathartic Clyster ~~not~~ strong^r to purge them than will do for others — This disposition is distinguished by y^e name of Idiosyncrasy

Particular times influence of Body

Particular Times of y^e Day, of y^e Month & of y^e Year have a peculiar effect on the Body — Astronomers attempted to account for these things from particular Phases of y^e heavenly Bodies — 'tis certain however y^t these have some influence on the Body.

of y^e Day

There is a peculiar kind of Fever w^{ch} all persons are subject to y^t comes on at 5 or 6 in y^e evening; this is very obvious in delicate Constitutions

of y^e Moon

The Age of y^e Moon is well known to have peculiar effects in Lunatic Cases — In warm Climates y^t Intermitting are apt to return at the full of y^e Moon.

of y^e year

In the Spring & Summer we observe y^t Body peculiarly affected; these Diseases indeed are principally owing to y^e Change of y^e weather from cold to hot, or from cold to hot.

of y^e non-natural

Air

There are other things y^t have a considerable effect on y^e Body, such as the Use, w^{ch} y^e respiration conduces greatly to health.

Heat & cold

Heat & Cold have great effects on y^e Body — heat renders it easily more irritable but cold destroys y^e irritability

Food

Food with regard to quantity & quality has a peculiar effect on y^e Body; Provided Persons can digest their food, the greater quantity & y^e more nourish^{ing}

Of Peculiarities belonging to different Ages

it is the stronger they become; thus if Athletes of old, were fed with large quantities of nourishing food to strengthen them — But if a large quantity is eaten & not properly digested, a Person is greatly weakened thereby.

Secretions The Secretions act in a method the reverse of food: if they are sufficient to carry off what is ~~reducing~~ out of the Body, the less they are, the better: large Secretions always weaken.

Sleep Sleep has a considerable effect on Persons: a great deal of sleep destroys the Sensibility & irritability; whereas watchfulness greatly increases both.

Having thus shewn the powers of depend on the life of the Body, before we dismiss this subject it may be necessary to add a word or two to illustrate the manner in which this Power is deriv'd. — We have already observ'd, that it is a Power superadded to the Chemical & mechanical Properties of the Body & independ^t on them.

In man it is deriv'd from the Brain by means of the Nerves; this is evident, for if you cut off the Nerves, this Power is lost — In ^{some} other animals, it is quite different; the Polypus for example, lives in every part, the same is true of the Garden Snake; if you cut off any Part of them it will ^{live} equally with the rest of the Body, & become a new Animal. — In other animals if you separate a part of the Body it will live a considerable time; thus, life will continue in the Heart of a Salmon if kept warm, for two or three Hours. But this is not the case in man; if the communication with the Brain by means of the Nerves is cut off, all Motion ceases; this we call the Nervous Power or the Nervous Influence.

Having thus finish'd the Natural State of the Body, we come now to consider the alterations that are made in the State by Disease — we shall begin with Acute Diseases.

Of Inflammation

Of Acute Diseases

Diseases divided I agree with others in dividing Diseases into Acute & Chronical, tho' I differ considerably from them concerning if Diseases y^t are to be rank'd under those Heads.

Acute Diseases are commonly defin'd to be those who compleat their course in a short time, whereas Chronical ones are consider'd as ha^{ve}g longer Periods.

But by this division we must be oblig'd ^{to place} y^e same Disease ^{under} each of the classes accord^g as it has a longer or shorter termination. — It has not yet been determin'd how short a time an Acute Disease must continue, or w^h are y^e proper boundaries betwⁿ acute & chronical Disorders.

Acute Diseases are thus class'd.

We chuse to affix y^e name of Acute Diseases to Inflammations, Fevers & Rheumatism, whether they continue for a longer or shorter time, all others we call by the name of Chronical Diseases —

The Plan.

In treat^g of Diseases, we shall in y^e first place, give you the History of the Disease — then show you y^e Alteration in y^e System w^h has caus'd this Disease, together with y^e causes, w^h produce this Alteration — And lastly, y^e method of Cure, or of remov^g this Alteration w^h has taken place. We shall begin wth

Of Inflammation

Inflammation

This is a Disease of a particular part of y^e Body & not of y^e whole System; the symptoms w^h manifest its presence in any particular part are y^e follow^g.

Symptoms

"The Pulsation of y^e Arteries is increas'd; there arises a greater degree & space of heat, a greater redness; an itching, soon convert'd to an Ache & often a throbb^g pain, augmented on the parts being distended; a swelling produced by a distention

of Inflammation.

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"of $\frac{1}{2}$ capillary vessels & of veins, & sometimes by an extravasation of fluids, also a contraction, & inability of motion in the Muscular Fibres."

In external Inflammations these symptoms are very visible, but internal Parts are so conceal'd that we do not perceive them; in such cases, we can only argue from Analogy; thus with regard to $\frac{1}{2}$ Pleurisy, we judge of some of these symptoms as we can't perceive from others if we do.

The first symptom is, an increas'd pulsation of $\frac{1}{2}$ Arteries — this & of other signs are very manifest in $\frac{1}{2}$ application of a Blister; in this case, if heat is increased in $\frac{1}{2}$ part, it grows redder, then there arises an itching, which turns to a throb of Pain.

But it may not be amiss to consider some of these different symptoms

more particularly

In the first place there is a swelling. — This must be owing to some additional fluids lodg'd into $\frac{1}{2}$ part, & that merely to $\frac{1}{2}$ rarefaction of the Solids if are therein already contain'd; for either this is a swelling of $\frac{1}{2}$ solids or of the fluids; but it does not appear by dissections if $\frac{1}{2}$ solids are any ways enlarg'd, the increase of size must wholly depend on the fluids — that there is an increase of $\frac{1}{2}$ quantity of fluids is manifest, for if redness of $\frac{1}{2}$ part shew $\frac{1}{2}$ of whole of the blood is there in a considerable quantity, for otherwise there is a larger quantity of the red Globules there is a proportionable part of serum & coagulable Lymph.

The next inquiry to be made is, where is this blood contain'd? — It is contain'd in $\frac{1}{2}$ capillaries; for in an Inflammation of $\frac{1}{2}$ Eye, you will easily perceive if capillary vessels are very larg'd. If you examine $\frac{1}{2}$ part of an Animal if dead of an Inflammation, you will observe a greater redness there if in any other part, which manifests if $\frac{1}{2}$ capillaries contain'd a greater quantity of blood.

Of Inflammation

Sometimes, this swelling is owing merely to a distention of *of* capillary vessels
of *of* capillaries as is the case in an Inflammation of *of* eye

At other times, *of* cellular Membrane is affected, then generally *of* swelling
 is much greater, & upon cutting thro' *of* skin in such cases we find a
 considerable quantity of blood extravasated in *of* cellular Membrane.
 The next inquiry is, By *of* means do these Capillaries come to be so distended
 with blood? — This may happen in two ways, As the Capillaries

The capillaries
 distended two ways
 by too large a quantity
 of blood, or obstruction
 receive *of* blood from *of* Arteries & convey it to *of* Veins, now if either the
 Veins are obstructed so *of* *of* blood cannot pass into them the capillaries
 then become distended; or if there is so large a quantity of blood thrown
 out by *of* Arteries *of* *of* Veins cannot readily receive it, in *of* can also
of Capillaries will be filled. — Let us now consider *of* these two
 Methods appears to be *of* case. — From *of* Anastomosing *of* *of* vessels

By such a vast variety of branches whereby *of* passages in some might be
 kept open if others were shut up; & from *of* fluidity of the blood, *of* great
 particles of *of* are vastly smaller than the Diameter of *of* smallest Capillary
 we may reasonably suppose *of* an Obstruction cannot take place: This
 might be argued a Priori, but Arguments a Posteriori are most convincing
 let us attend to *of* evidence offers itself of this kind. — We are to consider
 that the Capillaries have three different openings; some open into *of* Veins,
 others into *of* Cavities, & some into *of* secretories of the Glands; if there is
 an obstruction in either of these Openings *of* Capillaries will become filled.
 But it is very observable, *of* *of* Veins of an Inflamed Part, are much more
 turgid than those of a sound part; This is universally true — Now the Veins
 can be enlarged only in two ways, either by *of* passage to the Heart being

stop'd up, or by a larger quantity of blood being thrown into y^m by
 of capillaries — but there can be no obstruction in of passage to of
 Heart, because the Pulse is always full, w^{ch} shows that there is a large
 quantity of blood thrown into of Heart; it must therefore be caused by
 a larger quantity of blood circulating into y^m ~~tho' thro' the~~ thro' of
 capillaries, w^{ch} w^d not be of case if such an Obstruction took place?

Some endeavor to surd this observation in two ways viz some say
 of by of increase of heat of blood is much rarified, w^{ch} occasions of vessels
 to appear turgid w^h there is not an increas'd quantity of Blood —
 In Answer to w^{ch}, I observe, of of increase of heat is not more than ten degrees
 & of cannot rarify of blood a thousandth part of of diameter of of vessels;
 but these vessels are increas'd to double or treble their natural size; this
 therefore cannot account for of fact.

Others say, of tho' some of of capillaries are obstructed, yet others still remain
 open, w^{ch} together with of increas'd motion of of Heart will cause the blood
 to circulate much faster thro' those capillaries of are left open.

But this will by no means account for it, for if we suppose a certain
 quantity of a fluid to circulate thro' ten capillary vessels; if five of
 these are obstructed, tis evident of only one half of of fluid can
 circulate in a given time; & accordg to this, instead of an increas'd quantity
 of blood being lodg'd in of veins there w^d be only half of quantity there.

Now let us examine those capillaries that open to of cellular membrane
 & of other cavities of of body — This membrane receives not only a quantity
 of of serum, but also in an inflam'd state a quantity of coagulable Lymph
 & red Globules, w^{ch} is a plain evidence that there is no obstruction in those
 capillaries.

Of Inflammation

In the same manner it may be proved if there is no Obstruction in $\frac{1}{2}$ capillaries leading into $\frac{1}{2}$ Glands — For, w^h a gland is inflamed it always secretes a greater quantity of fluid than before, w^h could not be if there was an Obstruction form^d there. — All the Passages lead^g out of $\frac{1}{2}$ capillaries are open, & even wider than in a natural state, tis evident therefore $\frac{1}{2}$ Inflammⁿ cannot owe its origin to Obstruction.

This further proved
by $\frac{1}{2}$ colour of $\frac{1}{2}$ part

The colour of $\frac{1}{2}$ part affected is a further proof of this. We know, if when there is a stagnatⁿ of blood it becomes of a bluish cast or at least of a dark Modena colour; but we always observe $\frac{1}{2}$ inflamed part is of a bright red, w^h shows $\frac{1}{2}$ $\frac{1}{2}$ blood circulates properly.

Another, of $\frac{1}{2}$ principal symptoms of an Inflammation, besides the pain, is a Pulsation of $\frac{1}{2}$ Arteries. —

We have already shown, $\frac{1}{2}$ a greater quantity of blood can be thrown into any part than it naturally has by $\frac{1}{2}$ influence of a Stimulus act^g on $\frac{1}{2}$ part — We have also shown $\frac{1}{2}$ heat is increased in any part in consequence of an increased Action of $\frac{1}{2}$ Arteries of $\frac{1}{2}$ part — This plainly accounts for an Inflammation dilat^g $\frac{1}{2}$ small vessels, & caus^g a greater circulation in $\frac{1}{2}$ particular part.

— there is a contraction
of $\frac{1}{2}$ muscular fibres

There is also in an Inflammⁿ a contraction of $\frac{1}{2}$ muscular fibres of $\frac{1}{2}$ part — thus if an Uterus is inflamed it contracts itself so as to shut up that cavity. — We don't know of reason why this symptom takes place.

Sensibility & Irritability
increased.

Further, in an Inflammⁿ $\frac{1}{2}$ Sensibility & Irritability is greatly increas^d; this holds true of every part subject to Inflammⁿ; those parts $\frac{1}{2}$ are sensible become exquisitely more so, thus the Stomach w^h inflamed becomes so irritable $\frac{1}{2}$ it throws up even the mildest substances. — And those parts $\frac{1}{2}$ are neither sensible nor irritable yet become so by Inflammⁿ. We know this is fact, tho' we are at a loss to account for it.

Of Inflammation.

Another definition
is Pain
- by distention
if not by end
& contractile force

Another symptom is the Pain attending Inflammation — this is owing to the distention w^{ch} of vessels suffer. — Now in producing Pain from Distention, it is to be observed y^t this distention sh^d be made quickly in order to produce y^e sensation; for any part may be distended gradually with little pain — Again, if we keep a part distended for a considerable time it will lose y^e sense of pain it at first felt; or if a part is distended beyond its power of contraction; but if y^e distention proceeds no further than y^e contractile force can act against it, then the pain is considerable

— If you distend a Muscle, & give it room to contract, & then distend it afresh, y^e contractile force will put y^e Muscle into considerable pain. Agreeable to this we find, y^t in lax parts where y^e contractile powers of y^e vessels are not great, & they have sufficient room to distend themselves, there y^e pain produced by y^e inflammation is not considerable — on the other hand, in tense parts of y^e Body where y^e vessels are closely compressed together, if these vessels are distended, as their mutual distention is in some measure prevented unless y^e surrounding parts give way; in this case y^e pain of Inflammation will be very great. — this is y^e case in inflamed Membranes.

but if not room
then broken

Definition of Tone

The contractile power of any vessel we call its Tone — Now if a vessel is stretched beyond its tone, provided y^e tone is not wholly destroy'd, the pain is great — hence it is y^t y^e same stretch of y^e vessels does not create y^e same pain. — Again, y^e pain is in proportion to y^e sensibility of y^e part. Inflammation in y^e skin produces much more acute pain y^t in any other part of y^e body of y^e same degree of tenderness — thus inflammations of y^e Eye, & especially of the Retina are intolerable, this is caus'd by y^e sensibility of y^e part. W^h a part is inflamed, y^e pain is greatly increased on stretch'g out y^e same.

in proportion
of sensibility.

Of Inflammation.

- Throbb'g Pain There is also a Throbbing, to be felt in if inflamed Part. — This is occasioned by if contraction of if Arteries, w^{ch} throw in a fresh quantity of blood where by if part is more distended, & if pain thereby increased. — but this is more sensibly felt in if acute Inflammations, for where if pain is very great, the throbb'g is not so sensible —

The Causes of Inflammation

We come now to consider, if Causes which produce Inflammation. In treat^g of Diseases, after we have shewn if proximate Cause, or if Alteration if takes place in if diseased Part, we shall proceed to shew if Causes w^{ch} produce this Alteration — In doing this we shall avoid Hypothesis, & confine ourselves to those Causes w^{ch} have been observ'd to produce this Alteration

By Internal Stimuli

I Inflammation is produced by Internal Stimuli, whether Mechanical, Chemical, or Medical.

- of Mechanical Causes.

The first of these is a mechanical Cause; by which we mean, violent Friction, stretch'g, bruising, or cutting with any Instrument, & also External Pressure. The Advocates for if Doctrine of Obstruction have laid great stress on Pressure as a cause producing Inflammation; for, say they, by pressure if sides of many vessels are clos'd together so if fluids cannot pass, from whence an Obstruction arises. — But the Pressure must be apply'd so as to push if sides of if vessels from each other in order to produce an Inflammation — If you make a Pressure so as to give no pain, w^{ch} may be done by applying it gradually, there is no Obstruction produced — thus if hand may be strongly press'd against a Table so as to close many of if Capillaries, but this produces no inflammation. — But if Pressure is if cause of inflammatⁿ whenever, or however it is apply'd it sh^d produce if some Effects.

We have Experiments to prove if Obstructions may take place with^t Inflammation, & even, if an Obstruction does take place there can be no Inflammation. Where there is no distortion produced, there is no other kind of pressure can be apply'd if will produce Inflammation except in sensible & Irritable parts.

Of Inflammation.

We have frequent Instances of ruptures made in $\frac{1}{2}$ of vessels by mechanical causes where no Inflammation happens — thus, $\frac{1}{2}$ of Endo Achiles has been frequently ruptured with^t inflamⁿ. — A Bale has past thro' several parts of the Cellular membrane whereby many vessels are ruptured, & yet no Inflammation has happen'd. — A needle has been known, w^o swallowed to pass thro' of Stomach, & has produced no inflammation till it pierced the skin.

But if two parts are cut thro'; one of w^h is sensible, & $\frac{1}{2}$ of other insensible, if inflamⁿ will frequently be communicated from $\frac{1}{2}$ sensible to $\frac{1}{2}$ insensible.

Of Chemical causes.

The next are of Chemical Stimuli. — These are substances, which by mixing with dissolve & destroy $\frac{1}{2}$ part — These at $\frac{1}{2}$ of some time $\frac{1}{2}$ they dissolve the sensible, do inflame $\frac{1}{2}$ insensible parts. — These substances are concentrated Acids, Caustic Alkalies & Earths, & Metalline salts — These are all of substances we have w^h produce these effects. — Many other substances are said to produce these effects, but w^h foundatⁿ; thus, some substances apply'd to Ulcers are said to Erode them; but in reality they only by Stimulat^g $\frac{1}{2}$ part cause a greater inflammation w^h erodes $\frac{1}{2}$ ulcer; the neutral salts of $\frac{1}{2}$ blood can only stimulate they cannot erode any part — Another method whereby an Erosion may take place is by fermentation; thus, if Pus is apply'd to $\frac{1}{2}$ Cellular membrane it excites a fermentation w^h destroys $\frac{1}{2}$ Membrane — Venereal Poison will cause a like kind of fermentation — Tho' Pus will thus ferment & thereby destroy a Membrane yet, if it is stop'd in a quantity of Pus, $\frac{1}{2}$ membrane will not be destroyed. It is in this manner $\frac{1}{2}$ Erosions take place in different parts of $\frac{1}{2}$ Body; if these Erosions happen in a sensible part, an inflammation is produced. But if it takes place in an insensible part, it will be consumed without any pain — we have been surpris'd to find large quantities of Pus in some part of $\frac{1}{2}$ Body w^h any pain attend^g it; but we can make no Experiments as we must cut thro' sensible to $\frac{1}{2}$ insensible parts.

Of Inflammation

Medial cause

The third cause is Application of certain substances w^h have no mechanical or chemical effects on the Body — Thus Cantharides & Mustard seed have no such effects & yet they raise an Inflammation; there are a great number of other substances w^h will produce of like effects w^h apply'd to of suitable parts of of body — and it is remarkable, if these substances will increase of Action of of Heart & Arteries & thereby quicken the Pulse — If these are apply'd to a Muscle, they will produce a contraction; or to of Stomach they will excite vomiting. — The Disease produced is evidently an effect of these causes, & of increas'd Action of of Heart & Arteries is of disease if it is thus produced. There are some particular cases in w^h these Stimuli are to be apply'd, these we shall treat of separately.

Distention another Cause

2. Distention is another cause of Inflammation.

— It must be apply'd suddenly

Distention is certainly capable of producing Inflammation, as is evident in of case of luxations & fractures of bones — or of blood vessels being ty'd by a ligature so as to be distended an Inflammation will take place. — But Distention if gradually apply'd does not produce Inflammation; thus in Pregnant women, of Skin of of Belly as well as of uterus are greatly distended, but no inflammation appears.

Thus cold is apply'd in internal inflamⁿ

In like manner, the w^h of blood is circulating in considerable quantity on the surface of of Body, if it is suddenly thrown on of internal parts by of application of cold it produces internal Inflammations: yet, if the body is gradually cool'd, no such Inflammation takes place — In both cases, you equally stop Perspiration. But with very different effects.

These inflammations are most liable

These Inflammations arise in diff^t parts of of body, but of most sensible parts are these of are most likely to be inflam'd; thus, of mucous membrane of the Nose & Throat are liable to frequent Inflammation; also of Internal mucous Membrane of of Intestines, w^h produces a Dysentery.

Of Inflammation

Other parts of are capable of little disunion, such as if Pleura may be inflamed.

Division of Irresistible Part.

3. Division of an Irresistible Part produces Inflammation - This is evident in the case of wounds w^{ch} are always attended with a degree of Inflammation

Neutral Salts applied to naked membranes

4. Mucus thrown out of Solicles of mucous Glands before the Neutral salts are absorbed.

The Blood contains no stimulating substances except of Neutral Salts; & these are capable of Stimulating & inflaming the parts they are apply'd. - They are in a Natural state of body prevented from actg in this manner by of Mucus w^{ch} covers of internal parts; but if this Mucus sh^d happen to be wash'd away, then the Neutral salts stimulate those parts.

If the sebaceous matter w^{ch} covers of cheeks sh^d be wash'd off, then the Neutral Salts stimulate of skin there. - Thus we have frequently Catarrhs w^{ch} begin with a simple deflection on of part, but w^{ch} if mucus is wash'd off thereby, of Membrane at length becomes considerably Inflamed. - the same holds good concerning of Intestines in Dysenteries.

Wherever the Blood is said to be acrid, except in of Venereal Disease & some few more cases, of real Cause is, the Neutral salts Stimulating of naked membranes depriv'd of their natural covering

These causes operate differently in diff. Habits

There are all of causes we are acquainted with which produce Inflammation; these always produce an increas'd action of of Arteries, tho' they don't operate alike in all Habits - for in cases where the Persons are extremely weak, they produce no effects at all; these in wounds attended with a great loss of blood there is little or no inflammation. - but they operate powerfully on Habits in w^{ch} of body have great strength, or are actg strongly; & on parts of are very irritable & sensitive.

There may be some cases when of Effects do act strongly, w^{ch} of power of the Muscles may be almost lost; thus in Children after of Measles, of Effects continue to act.

Of Inflammation

strongly w^o if strength is greatly reduced.
 Again, if more sensible & Irritable any part is, if more readily an inflammation is produced in it: thus, if you rub the eyes & skin both at same time, you will find an Inflammation is produced in eye, when there is none in skin. Thus also, Caustic alkalies apply'd to stomach will cause a considerable Inflammation, w^o if the same was apply'd to skin it would produce no such effect. — These causes then operate more or less powerfully according to strength of vessels & irritability of part, but this would not be the case if Inflammation proceeded from obstruction, it would then act alike in all cases.

Effects of Inflammation on the system — Inflammation sometimes has no effect on system in general, sometimes it produces Inflammatory Diathesis, sometimes symptoms of Irritation.

The system not affected in weak habits — In habits not very strong, if the Inflammation is small, & of pain not violent, or if the part is rarely disturbed, system is not affected.

w^o in tense morbidities the system affected — If the Inflammation takes place in parts it are very tense, as membranes, the whole system will be affected: thus, Inflammations of Pleura have much more powerful effects on the system than inflammations of Liver — If the parts are soft the system in general is but little affected; thus an Inflammation of the Brain itself, does not affect body much, but an Inflammation of meninges of Brain, is attended with powerful effects.

Again, the size as well as situation of inflammation is to be considered; for if it is small, it will not be attended with such effects on system, as w^o it is large: as for example, if Inflammation of a finger will not be nearly so great as if of a whole Limb.

The system affected in two ways — If system in general is affected it appears in two ways viz. either by morbid Inflammatory Diathesis, or symptoms of Irritation.

Of Inflammation.

We shall first consider of symptoms of Inflammatory Diathesis, w^{ch} is an inflamⁿ of of system in general — this only happens in strong habits, & where the pain is considerable; in these circumstances, a trifling inflamⁿ will produce it — this is usually call'd an Inflammatory Fever, but I don't chuse to give it of name, for a Fever may subsist either with or wth an inflamⁿ, and therefore of term is not sufficiently accurate, I call it therefore by of name of Inflammatory Diathesis. — The signs w^{ch} denote its being present are

as follows, "there is a hard, & for most part, a strong, full & quick pulse; "Blood w^{ch} taken from of arm more fluid, so of of red Globules fall to of bottom, "of coagulable Lymph coagulat^g afterwards strongly, & adhering to of, so as "partly to form a crust on the top, call'd by some of Buff: a full, & frequent "respiration, attended sometimes wth a cough; a dry white Tongue & Thirst, "restlessness; Urine becom^g turbid w^{ch} cold, & sometimes deposit^g a catarrhus "sediment; universal redness, Heat, & swelling; watchfulness & Delirium; "thirst, with red, sunk'd, protuberant, & often dull eyes, sometimes converted "into a violent, sometimes into a low, mutter^g Delirium, often at last terminat^g "in convulsions & Death."

The Pulse, in this case, is always hard w^{ch} may be consider'd as one of its most distinguish^g Characteristics; it is for of most part also, strong, frequent, & full.

The hardness of of Pulse, indicates of strong Action of of Arteries, & w^{ch} these Contract strongly they cause of some contraction in of Heart — The Pulse is also more full & frequent, but these are not symptoms of, always accompany a hard Pulse, there are some cases, in w^{ch} of Pulse is very hard & at of same time extremely small, & in some strong Patients, of Pulse may in an inflammatory Diathesis be little more frequent than usual; sometimes it is no more than 80 pulses in a minute. But generally it is from 90 to 100 in a minute.

Of Inflammation

Fluidity of
Blood & fluidity

In Fevers, & Pulse is generally much quicker than in of Inflammatory Diathesis.
"The Blood taken from of Arm is generally more fluid than in a natural
state, so of of red Globules sink, & of Lymph coagulates at the top." It is
generally apprehended, that this is a circumstance w^{ch} manifests of of blood
is more viscid than usual; this mistake is founded on the toughness of of
coat w^{ch} adheres to of red Globules w^{ch} are sunk below it — But this toughness
of of Lymph is owing to its being separated from every other substance. of
of Coagulation becomes stronger, whereas in a natural state it is mixed with
of red Globules w^{ch} prevent so from an adhesion; & that it is now more
fluid than usual is evident by of sinking of of red Globules. — The more
fluid of blood is, the sooner of separation takes place in it.

This Appearance of of Blood as well as of hardness of of Pulse are constant sym-
ptoms of this Diathesis. — But in forming our Judgment of the Blood report
sho'd be always had to of Caution given on this head in page 16.

Full Respiration

"The Respiration is more full & frequent, attended sometimes wth a cough."
'Tis necessary in order of of Blood might circulate properly thro' of Lungs that
there sho'd be a quantity of Air thrown into them: the greater quantity of blood
therefore of is thrown into of Lungs, the greater quantity of Air w^{ill} be necessary
to cause of blood to circulate; in this case, a large & full respiration will ensue;
but an increased action of of Heart & Arteries will cause an increased flow of blood
to of Lungs; these symptoms will therefore take place, & all difficulty of Respiration
is more or less attended with a cough.

Dry, white Tongue

"A Dry, white Tongue, & Thirst" are other symptoms of this Diathesis — The white crust
is form'd by of mucus of of Tongue being dried up by of Air pass'g so frequently
over it in Inspiration, whereby of mucus loses its transparency & becomes white,
the thicker it is, of more perfect does of blood appear to be, whereas, as the blood
becomes purulent it becomes yellow, & verging to blackness in proportion thereto.

The Spirit is also caus'd by if quantity of Air if is taken in by Inspiration we carries off if thinner parts of if voliva.

"There is an universal redness, heat & swelling" — This shews up there is a great quantity of blood thrown into it capillaries than usual, but occasions the capillaries to swell; this distention produces an universal redness, heat, & swelling pains in it joints & membranes of it body — At it same time the arteries act strongly, a considerable heat is generated. — The secretions come

to be considerably increased, sometimes by sweat, & at other times by Urine.
 Wth the Urine is secreted in large quantities there is a considerable share of y^e
 Coagulable Lymph in it, w^{ch} renders it turbid; this shews y^e y^e vessels are
 act^y strongly & propell^y y^e Blood wth considerable force against the secretory
 Organs. — The Blood being thus thrown up into y^e Brain occasions a

Signs. — The Eyes also afford us a proper Criterion; for their red, swell'd & protuberant shows of Compression of y^e Brain, by y^e quantity of blood thrown into it. — This state of the Brain produces a Delirium attended with a low muttering rather than w.th raging fits, tho' these sometimes take place, & some of these raging fits y^e Patient frequently falls into Coma's & is cut off.

Or if this is not the case, an universal restlessness prevails, & by a quantity of blood thrown into of Brain, if Patient is depriv'd of sleep w^{ch} in the end brings on a raving Delirium — if these symptoms do not complet the Melancholy Scene, if Patients strength is greatly weaken'd w^{ch} at length carries off an inflammatory Diathesis.

Inflammatory Drachesis differs spontaneously from Fever, inasmuch as if symptoms of the first stage do not necessarily succeed or accompany it, & it does ^{not} increase by Excitation, followed by Relaxations. — Whereas in Fevers there are some remissions from it first, & it commonly happens in it Morning, here there are exacerbations with any remissions, rising continually higher till it comes to its state.

Of Inflammation

This Inflammatory Diathesis is excited by many Causes besides Inflammation, for we see Pulmonary Consumption.

Symptoms of
Irritation

"W^h the Pain is very great, or if Habit very weak & irritable, the symptoms of Irritation take place, viz. a very small, quick Pulse; faintings, & convulsions of the extremities, especially w^h an internal Part is affected; Delirium; Convulsions, or long continued spasmodic Contractions of the Muscles, sometimes terminating in Death." — Where the pain is very great, as in Inflammation of the

a small Pulse

Intestines, or where the Patient has lost large quantities of Blood, the Pulse instead of being full, becomes very small, and so quick as to beat 140 strokes in a minute — This smallness of the Pulse is owing to the Heart's not being

faintings

able to throw out a considerable quantity of Blood at a time, & also, to the Action of the Artery w^h contracts itself to a very small Diameter. In this case, the Patient seemingly loses his strength all at once & faints upon the least motion; but this is call'd rather a prostration of strength, than the loss of it, the Muscles seemg rather to be prevented from acting, rather than exhausted, in consequence of w^h the extremities come to be pale & cold.

Delirium

In this case, a Delirium frequently arises w^h is very different from the former, w^h is attended with spasmodic Contractions of the Muscles, w^h are sometimes

Convulsions

mouv'd alternately, & sometimes a particular set of them is affected, such as the Muscles of the lower Jaw &c.

Besides these, various other symptoms are often produced, w^h particular parts are inflam'd, & their functions thereby hurt or destroy'd.

Of the termination
of Inflammation

If the cause of an Inflammation is removed it sometimes goes off soon, sometimes continues for long time, or terminates in another disease. — It frequently happens if w^h a disease arises from any cause, on removing the cause, if the disease is also removed; but this is not always the case, for sometimes the disease may continue after the cause is taken away — This is the case of Inflammation, w^h may continue for a considerable time with the disease, or diminish, & then terminate in some other disease. But this is not always the case, for

Of Inflammation

by simple
resolution

This Disease sometimes is cur'd by simple Resolution, w.^{ch} upon remov^g of cause of Symptoms gradually diminish, & at last leave of Patient.

Thus, if you apply a Blister, on remov^g it, if Symptoms diminish & at length entirely go off — This simple resolution takes place chiefly w.^{ch} of system in general is not very strong; thus a Blister apply'd to a weakly constitution, on its being remov'd, if inflamⁿ soon goes off: but in a robust habit, if Inflamⁿ continues after if Blister is remov'd. — The resolution of if Inflamⁿ depends also on if

Small Inflamⁿ

size of if part if: is consider'd; if if part is small, on remov^g of cause of Inflamⁿ commonly ceases; but if it is large the Inflamⁿ frequently continues — Suppose a Thorn, for example was lodg'd in if finger, if if inflamⁿ is only round if wound, on if extraction thereof it w^od cease; but if if inflamⁿ was extend'd to if whole finger, then if inflamⁿ w^od continue after the thorn was extract'd.

Again, if violence of if Inflamⁿ is to be consid^d. — If a Blister is apply'd to a part, if it is soon remov'd if Inflamⁿ soon ceases also; but if if Blister is long continued to if part, if inflamⁿ will not be so readily remov'd.

Inflamⁿ of if skin goes off much sooner than if: of if cellular membrane. — Thus a Luxation or Fracture of if Bones caus^g an Inflamⁿ, this is not so easily remov'd as if it had only prevail'd in if skin —

Lastly, if tenacity of a Part occasions a consid^d difference in if removal of an Inflamⁿ — if if part be capable of being dilat'd, if Inflamⁿ soon goes off; but where if part is tense it will not be easily resolv'd — Thus an inflamⁿ of some parts of if throat is easily remov'd, but an inflamⁿ of if Pleura is not so easily subdued. — The possibility of if part is also to be consid^d; thus an inflamⁿ of if Eye is remov'd with difficulty.

Again, we are to consider, if: in an Inflamⁿ, there is not only an increas'd action of if Venules, but also a distention of if Capillary vessels —

Of Inflammation

Distention is sufficient of itself to raise inflamⁿ, & therefore is capable of continuing it: thus we find a Ligature placed on a Finger will produce a distention of its capillaries, & thereby an Inflammⁿ. — if the distention is great & long continued it will prolong the Inflammⁿ. — Again, where the Inflammⁿ only affects the skin, there is only a distention of its capillaries; but where it affects the cellular membrane there is commonly an extravasation of blood there — it also frequently happens, in very tense parts of vessels cannot be distended with: a rupture of those parts will convert those vessels; both of w^{ch} will continue the Inflammⁿ.

Resolved by
Evacuation

Resolution by Evacuation also removes Inflammⁿ. This takes place,

- (1) W^h the mucous glands of a part inflamed, or near it, do in consequence of the Inflammⁿ secrete a considerable quantity of Mucus, at first thin & transparent, afterwards becoming viscid, & changing its color to white, greenish, or yellow, often streaked wth blood;
- (2) W^h an Hemorrhage arises in a part affected;
- (3) W^h a large or long continued Evacuation happens from some ^{other} part of the Body.

It has been shown, if a less distention in an Irritable part will be attended with greater Inflammⁿ, than a greater in a part w^h is not irritable; for this reason of distention in small vessels if continued, the Inflammⁿ. — But in this case it happens, if we can apply certain medicines to lessen the force of the Arteries more than the distending Power can increase them; this is done by Evacuation.

All evacuations
weaken, but
not all are equal

All Evacuations lessen the force of the vessels, & bleed^g of most of all others. If we open even a considerable Artery of Patient is weak^d sometimes to faint. Tho' evacuations weaken the body greatly, yet all evacuations do not weaken every part alike; thus a Pleurisy weakens the Lungs more than any other part, tho' the whole of the Body is weakened by it in a less degree. — It also more particularly weakens the part w^h surrounds it: thus, a Pleurisy if cured is not on again by purg^g & Medicines.

Evacuated by Mucus In the first place, an Evacuation of mucus from the glands of an inflamed Part removes the Inflammⁿ. — thus in a Catarrh, w^h arises from an inflammation of the mucous membrane, a greater quantity of mucus is secreted w^h weakens the Arteries of the part, whereby the Inflammⁿ is removed off.

Of Inflammation

There is no necessity if there sh^d be an immediate connectⁿ between ^{of} secretⁿ Glands, and of inflam^d part, in order to receive relief by of secretion; thus in of Pleurisy, of Glands of of Lungs w^h have ^{no} immediate connectⁿ with the Pleura do not withstand, give relief by their secretion.

At first thin, w^h of secretion is first begun, the very thin, consist^g of Lacte with ductal salts & also a small part of of coagulable Lymph & Serum; this is very far from giving relief, especially w^h it is from of part affected, for in of case of salt stimulate of part & increase of Inflammatⁿ. But w^h Mucus is secreted in any large quantity, for any part of of Body it becomes viscid, it contains then but a small quantity of Natural salts, & gently relieves of Inflammation.

Where of Mucus is thus secreted, it attains its original Properties considerably, first in its color w^h becomes yellow or green, & of greater of Inflammatⁿ of of part for w^h it proceeds, of yellower or greener it becomes — it at length comes to resemble Pus so much, of it is difficult to distinguish it; indeed, where of Inflammⁿ long continues, of Mucus is converted into Pus & corrodes of Membrane & generates an Ulcer. — It happens also at this time of of vessels w^h in a Natural state only throw out a watery fluid, to now secrete a quantity of blood; this is not owing to a rupture of of vessels, but to a dilatation of of Arteries by of Inflammatⁿ. This kind of resolution takes place, where of mucous membrane is of part affected or some part near it w^h produces a secretion from of mucous Glands.

The 2^d means of Resolution, is by Hæmorrhage from of Part affected.

This Hæmorrhage takes place in consequence of of capillary vessels being spread on solid Membrane where they are kept constantly moistⁿ — Thus of Arteries spread on of Membrane of of Nose by an evacuation from of give relief in an inflammatⁿ of of Brain. — This evacuation depends on of same principles with the evacuation by Mucus; there is only this difference, of of Hæmorrhage resolves of Disease in a much shorter time, as of evacuation is generally in a much greater quantity. — It is necessary of this evacuation sh^d have a free course, for if it flows into of cellular Membrane, of distention there will overbalance of Advantage of might be derived from of evacuation.

Of Inflammation

Accidental Evacuation The last kind of Resolution is by Accidental Evacuations

By Purgings If a Person sh^d be affected wth an Angina, & at the same time a Purgings sh^d take place, if Evacuation will carry off if Inflammⁿ — In if some manner in a Peripneumony, if Menstrua sh^d happen to break forth, if Disease may be carried off thereby. — But we must observe if these accidental Evacuⁿs don't act equally; thus the Menstrual discharge does more certainly carry off a Pleurisy than a much larger quantity of Blood taken from if Veins; this depends on the follow^g principle, that the evacuation is much greater from if part Inflamm^d by this method, than w^d be made by evacuat^g from if system in general.

Thus Purgings, causes a great quantity of blood to circulate in if Intestines & in consequence of w^{ch} there is a derivatⁿ of it from if external Parts, by w^{ch} means external Inflammⁿs are cur^d — Thus in if Menstrual discharge, there is a large quantity of Blood made to circulate in the uterus, by means of w^{ch} Inflammⁿs of if Throat are greatly relieved — but we shall speak more fully on this head as we come to treat of this Indication of Cure

Resolution happens also in consequence of Fever, w^{ch} a cold fit of Fever is produce & carries off if Inflammation — but this must be left till we come to treat of Fevers.

By Metastasis Inflammⁿ terminates further by Metastasis; w^{ch} an Inflammⁿ arises in another part, & carries off the primary one. — The nearer if second Inflammⁿ is to if primary one, if more violent it is, & if greater if sensibility of if part it affects; if more certainly it carries off if first disorder.

This 2^d Inflammⁿ is totally accidental & no was dependent on if former — but we know if many times if 2^d Inflammⁿ carries off if primary one — Thus, we often observe, a Pleurisy is cur^d by an Inflammⁿ of if Parotid Gland, or of if Extremities, or by if applicatⁿ of a Blister to if part affected. we don't know how this happens; all attempts to account for it have been totally unsatisfactory. — But we know, if if nearer if 2^d Inflammⁿ is to if former, if more effectual it is; thus a Blister apply^d to if side relieves, whereas w^{ch} apply^d to if Extremities it increases if first Inflammation.

Diff. Throats
cancer? this
insufficient

Of Inflammation

Some have accounted for this by supposing if there was a communication of Vessels between Parts where both these Inflammations happen, & if in consequence thereof there was a disunion of Fluids from one part to the other. — But this is not of case for it takes place where there is not of least communication. — Nor is it done by ^{Evacuation} ~~evacuation~~ of any fluid from the vessels, for an Inflammation raised by Mustard seed where there is no evacuation made, ^{has the same effect} Nor is it done by anything thrown into the Inflamed Part, because friction will answer the same end.

Others account for it by asserting a Translocation of the morbid Matter from one part to the other. — But this is not satisfactory; for tho' there may in some cases be a translocation of Matter from one part to another, as is well known to be of case sometimes with Pus formed in any part which may be thrown on another part; but in order to this the Pus must be reabsorbed into the Habit, circulate with the Blood & be equally mixed with it; part of this may be thrown again into the cellular Membrane where it again ferments & produces a fresh quantity of Pus — thus in the small Pox if Pus gets out of the small Abscess & after circulating for some time forms fresh inflammations & Abscesses. — But in this case, if Inflammation leaves in the first part, which if Pus is absorbed before a 2^d Inflammation takes place, which is not of case here, for if first Inflammation continues while the 2^d is forming, & it is certain if the same Matter cannot be lodged in two different places at the same time. — There are 4th diff^t methods of resolution.

If a Part is inflamed, & then happens to be two contiguous Surfaces, if one of them is inflamed will grow to the other & become hard & callous; this is still more certainly the case if both the Surfaces are inflamed — thus the Pleura by Inflammation will adhere to the surface of the Lungs. — There is always a degree of callosity after Inflammation which continues for a longer or shorter time; this is very different from Schirrus & Cancer which are composed of extravasated chylous humors.

We come now to consider of other Terminations of Inflammation, whether it either continues for a long time, or terminates in another Disease, either in suppuration, Gangrene or Schirrus.

There are few Inflammations except those of the skin, which continue for a long time without any alteration; but here it may be sometimes the case, as for example

Of Inflammation,

If of skin is inflamed by of mucus be^g wash^d off, & if air being constantly apply^d it is by this means kept up for a long time with^o any acceleration.
But Inflammⁿ if not carried off by Resolⁿ terminates either in Suppuratⁿ, Gangren^e or Slough^s.

Let us first consider w^h happens w^h Suppuration takes place.

Of the Inflammⁿ
by Suppuration

I w^h a quantity of Blood is thrown out into any cavity (if Inflammⁿ continu^g) it ferments and is convert^d into Pus, w^h afterw^h acts as a ferment on y^e solid Pt^s & gives cause in for of conversion of of whole into a matter similar to itself, if symptoms of of fast Disease go^g off. Sometimes a membrane is form^d round of Pus w^h prevents it for any of circumjacent Parts; but more frequently it ferments w^h them till it has made itself an opening by w^h it is evacuated. This happens sooner or later accord^g to of distance of of Inflammⁿ from of skin, or of surface of of cavity opening internally. While it is taking place, if Pus sometimes separates of Muscles & other Pts for one another, by destroy^g the Cellular Membrane?

The Properties
of Pus.

Pus is a fluid totally diff^t from any other found in of Body; tis not therefore a secret^d fluid but form^d by some chemical operation. Now there can no change of of kind happen in Solids but either by solution, Precipitatⁿ or Fermentatⁿ — either then are two fluids mixed together to form a new compound; but this is not of case here — Or else there must be a precipitant to separate this fluid from some other compound; but no such Precipitⁿ is found — it must be form^d therefore by Fermentatⁿ, in w^h there is a fresh combin^g of parts so as to form a compound totally diff^t from its component parts.

Form^d by
fermentatⁿ

not form^d in of
blood vessels

Now this fluid must be form^d either in of vessels themselves, or in of cavities of of part affected — Pus is not found in of blood vessels in general, & where there is no extravasation there can be no Suppuratⁿ; it must be form^d ther^e in of cellular Membrane into w^h of blood is extravasated. — In an Inflammⁿ of of skin, where there is no separⁿ of of cellular there is no Pus form^d — In Membranes tis not found between their coats but on their surface. We know of extravasated fluids with turn to Pus, as is manifest by of follow^g Experiment. — if we take off of dead skin & apply a sticky Plaster, Pus will soon be form^d below of skin & of Plaster; now this must be form^d by of extravasated fluids if cannot be absorb^d again by of Lymphatics. As there is a currentⁿ carried on thro^g of capillaries of of inflamed Pt^s, if the Pus were absorb^d

of Inflammation,

we sh^d hardly fail of discerning it in y^e blood vessels; but we never find it there till a great part of y^e w^h is inflam^d is destroy^d.

Heat necessary
to form Pus

There are certain peculiar circumstances in w^h y^e Fluids must be placed in order to their being converted into Pus. — In order to carry on Fermentatⁿ there must be a certain degree of heat; now here is 10 degrees of heat above y^e natural heat to bring on this fermentatⁿ. w^h compensates for y^e redness w^h extravasated fluids acquire. — We are however certain of this circumstance, y^e no Pus can be produced unless the pt. is inflam^d.

By what means?

There is one Argument in fav^r of Pus being form^d in y^e vessels w^h must be consid^d. w^h is, y^e in some Inflamm^tns there is a large quantity of Pus thrown out, & more than can be reasonably supposed to be form^d in y^e Ulcer itself. — But it must be observ^d, y^e all y^e matter thrown out in such a case is not Pus; it principally consists of y^e watery pts of y^e blood mixed with Neutral salt, w^h are ting^d w^h Pus.

Again, it may be said, y^e it is difficult to conceive how a quantity of Pus sh^d be form^d in an Ulcer, as there is a proper circulation carried on in y^e vessels y^e surround it — It must be observ^d, y^e tho' Pus can't originally be form^d any where but where there is an Inflam^t, yet w^h Pus is thrown out into any pt., it will ferment there & produce a greater quantity in y^e pt. — And even y^e vapor w^h arises from Pus will generate more; thus the Breaths of consumptive Persons drawn into y^e Lungs of those in health

It destroys y^e
fluids & solids by
fermentatⁿ.

will generate Ulcers there. — It is not necessary y^e y^e Inflam^t sh^d continue in order to a Suppuration tak^g place, tis suff^t y^e any quantity of Pus is form^d for y^e purpose.

Another Property belong^g to Pus to be observ^d is, y^e Power it has, not only of convert^g y^e Fluids to its own nature, but even of destroy^g y^e Solids. — Pus cannot of itself destroy any Solid, for if a membrane is immers^d in Pus it will not destroy it; it can only effect this by ferment^g w^h those solid pts & thereby produ^g first Ulcerations.

But all pts are not equally converted into Pus; the Skin is easily destroy^d thereby, as we never find any pt. of it remain^g in Abscess; membranes also, & even Bones are destroy^d thereby; But Muscular fibres are destroy^d w^h difficulty, for we frequently find y^e y^e whole Cellular Membrane is destroy^d & y^e Fibres remain & alive, but it sometimes destroys whole Muscles.

Of Inflammation

W^h a pt. is inflamed & suppurates, if supuration many times goes on till the whole of it is destroy'd. — Indeed, if Body is admirable in its construction, for if any pt. is destroy'd, tis thrown off by an effort of Nature, & if part is generated again. — But if Pus does not stop w^h it has destroy'd if inflamed pt. but rats its way till it procures itself a Passage. — If if Pus is form'd near y^e surface of the Body this is of no great consequence, but if it sh^d be deep seated, it may do much mischief by destroy'g all y^e cellular Membrana below y^e Muscles; so y^t we need of if inflamed pt. we have a cavity form'd.

Of y^e Inflammⁿ.

Subsistⁿ on suppⁿ

of granulatory

suppurative Inflammⁿ

their difference

Where an Opening is made into any pt. of y^e Body, on y^e surface of y^e pt. there arises an Inflammⁿ: thus w^h an Abscess opens Externally the surface thereof becomes inflamed the same takes place Internally. — but this Inflammⁿ is very diff^t from y^e first already describ'd, for this causes y^e Ulcer to lengthen whereas y^e Ulcer is fill'd up again. the nature of this Inflammⁿ we are not sufficiently acquainted with. There is another kind of Inflammⁿ w^h destroys y^e surrounding pt. by pushing suppurations — The Inflammⁿ w^h produces y^e granulatⁿ is not so violent & is not attended w^h so great a degree of pain or swelling as y^e other. They are both excited by diff^t causes; thus if applicⁿ of Neutral Salts will cause the Ulcer to spread, but Metalline Salts will produce granulation. In general, w^h y^e Body is very irritable, and consequently in weak Habits the suppurative Inflammⁿ is apt to take place, whereas in strong Habits y^e granulatory is most apt to arise — the Irritable Habit is therefore call'd a bad Habit of body. — In the granulatory Inflammⁿ there is a quantity of thick Pus form'd on y^e surface w^h is to keep y^e Ulcer moist, & to defend it fr^m y^e Air; but if this is not taken off, it causes y^e Pus underneath it to putrify whenever y^e granulation takes place y^e pt. is generated again. In some animals whole Limbs are generated, this is particularly true of y^e Lizard, but man has no

Of Inflammation.

Such Power, tho' there have been some extraordinary instances of this kind.

A remarkable case of this nature, was that of a Midshipman, who had both of his *Costals* of his lower Jaw together with the *8th* between them entirely destroy'd by a hot Poker, & yet by a wonderful effort of Nature, ^{all} these parts were supply'd again.

In Fractures of Bones it is well known, if granulations of flesh arise, and by degrees become loaded with cellular particles, till the whole becomes Bone. The skin is easily regenerated; but if cellular membrane is not so soon, the it may be so in process of time. — But this granulation does not always arise, for sometimes of other kind of inflamⁿ takes place w^{ch} destroys it; a quantity of Pus is absorb'd w^{ch} brings on Healt^h symptoms, & if Patient dies.

Suppuratⁿ sometimes happens in a diff^t method, w^{ch} a Membrane is inflamd & a quantity of matter is thrown out on the surface of it. Membrane, this matter is frequently convert'd into Pus — In y^e same man^r w^{ch} a fluid is collect'd between y^e skins, it rises into a Blister, & part of y^e fluid is convert'd into Pus.

The Pus by thus forming, whether it be externally or internally, it coheres of membrane it covers & forms an Ulcer, w^{ch} raises a 2^d inflamⁿ forming granulatory flesh whereby many times if Ulcer is cur'd; tho' these suppurations on y^e surface of membrane are of more difficult cure than those form'd in y^e cellular membrane.

When this suppuratⁿ happens in y^e skin, it is attended with intense pain; when it takes place in those membranes y^e are constantly in motion as in that of Pleura &c. the constant motion prevents y^e granulation from arising & settling.

sometimes, if Ulcer is prevented from healing by its being exposed to some stimulat^g fluid, thus an Ulcer in y^e Bladder is constantly expos'd to y^e Aqueous salts contain'd in y^e Urine. — These particular circumstances excepted, this Suppuration is in every respect the same w^{ch} y^e former.

Of Inflammation

Prognosis of Suppuration

We may expect if Suppuratⁿ will take place, (1) wⁿ if cellular membrane or parts covered with it are affected: wⁿ if Patient is young, or of a sanguineous Temperament, or wⁿ if Disease happens in wth spring. (2) wⁿ if skin is inflamed so if scarf skin is raised from it; or wⁿ a mucous membrane is affected & if Inflammⁿ continues, notwithstanding increased secretⁿ of mucus in wounds.

Symptoms of Gangrene & Mortification

Inflammⁿ terminates also in Gangrene & Mortification: In this case symptoms of Inflammⁿ go off, & if part becomes paler & of a brassy colour, flaccid & at last black; if scarf skin is raised up in large Blisters, wth contains a semi-purid Ichor: & at last if whole pt. putrefies, & if Gangrene & mortificatⁿ spread until they destroy if Patient, by affecting a pt. necessary to life, or else by producing a Fever attend^g wth if symptoms of Irritation.

Definition.

There have been a variety of distinctions made betwⁿ Gangrene & Mortificatⁿ, but I chuse to call if a Gangrene, wⁿ if pt. is already dead: & if Mortificatⁿ takes place wⁿ if pt. begins to putrefy. — In a Gangrene, all if symptoms of Inflammⁿ cease, for if circulatⁿ is stop'd, in consequence of w^{ch} if part becomes flaccid & at length black — In a Mortificatⁿ, if scarf skin separates from if skin Hair connections being destroy'd; in these Blisters there is a quantity of putrid watery fœtus; at length if whole of the part putrefies, & this sometimes very speedily.

Some parts more liable to Gangrene

Inflammⁿ of if skin are more liable to gangrenate than any other; Inflamed Membranes are also very liable to mortify — Again, wⁿ if Inflammⁿ is very great, a Gangrene is apt to take place, because hereby if pressure on if surround^g parts is great.

Sometimes takes place wth Inflammⁿ

— This Disease sometimes arises wth previous inflammⁿ, for pressure, Ligatures on the Veins, weakness, Extracapsul^r of gr^t quantities of blood, & applicⁿ of sedatives.

Produced by Pressure

Bye consid^g these thgs we shall see how a Gangrene is produced — We have observ'd if if Life of a pt. depends on its communicatⁿ wth if Brain by means of if Nerves, if if communicatⁿ is destroy'd, if Life that pt. is destroy'd also — Now if if Inflammⁿ becomes so great if if Herors press thro' it are greatly press'd, & if pt. is destroy'd this holds true with regard to external pressure.

Of Inflammation,

In Membranes, if parts are very loose, an inflammation here will make a great pressure of 2^d Nerves, & therefore such pts are very subject to gangrene. Indeed it sometimes happens if a section takes place near of inflamed pt. wth loss of tension of it pt. but this is not of case wth of skin, tho' that may be somewhat relieved by a separation of it from true skin. Another reason, why the skin is more liable to gangrene is its vicinity by wth of inflamⁿ is carried much higher up. otherwise it w^d be

External Pressure

a transverse cause

External Pressure is a cause of frequently produces Gangrene, because if nerves are more effectually pressed by it than any other. wth by ligatures you press any pt. it is denuded, but if the pressure is soon removed & feel of it pt. is easily recovered; but if it pressure is continued for some time, there is a Palsy produced & if continued for a yet longer time, it produces of Death of it Part.

A further cause why Pressure produces Gangrene may be, if of small Trunks of Nerves are much softer of Trunks of nerves, & therefore more liable to be crushed.

As soon as a Gangrene takes place, if Action of it vessels go off, if small of Nerves becomes flaccid; this is a further Proof of it falseness of it Doctrine of Obstruction, for if a Gangrene came on in consequence of an Obstruction, as if whole of it blood must still remain in it pt., so it pt. must remain red & swell'd — but if it becomes pale, shows, if of Arteries are collaps'd, & consequently no Obstruction.

If there is any Extravasation of blood if part becomes of a dark colour, wth is of colour of it blood stagnat^d there; but wth of Putrefaction comes on, if red Globules become soluble in it serum, & then the whole becomes of a brownish colour.

wth of putrefaction is further advanced, if scurf skin being separated, is raised up in Blisters by it serum of now comes out thro' it Pores; at length there is a total disolⁿ of it whole Part.

Putrid matter greatly weakens it solids when there is no previous Disease, except where it produces pain, & therefore may increase it symptoms of lard^y in this case. — Bland Putrid matter acts as a Plument, so if of smallest quantity being applied to a piece of flesh will putrify it whole very speedily.

Of Inflammation

Howe Gangrene
is sometimes stop'd

It sometimes happens y^t one Ferment puts a stop to another: thus, when y^e action of y^e vessels is considerable, y^e spreadg of y^e Gangrene is frequently put a stop to; hence it is y^t modicities w^{ch} increase y^e action of y^e vessels brings on a suppuration round y^e gangren'd parts. — If this is y^e case, then the gangren'd P^{ts} are thrown off & an ulcer is form'd by y^e suppuration; but y^e Gangrene is apt to recur, for some of y^e pulv'd matter is left behind, w^{ch} with^t great care will produce a fresh Gangrene.

w^{ch} fatal

If y^e Gangrene spreads so as to destroy a part necessary to life, the Patient is destroy'd thus w^{ch} a Gangrene takes place in y^e Pleura, as soon as it spreads to y^e Heart or Lungs, the Pat^t dies. — But sometimes he is destroy'd before this; for a Fever being rais'd attend^d wth symptoms of great Irritability, y^e Pat^t is thrown into Convulsions w^{ch} cut him off.

w^{ch} kind of Prepuer
moderates it

With regard to y^e Prepuer w^{ch} produces a Gangrene, it is a matter of doubt, whether y^e measure of it w^{ch} does not affect y^e Circulation can produce this effect. Persons who have been long confin'd to their beds have had a Gangrenous afflu^g of y^e parts which have been press'd on, but this does not come on with^t previous Inflamⁿ.

It is not easy by external methods to compress an Artery, tho' when it is done it will bring on a Gangrene with^t Inflamⁿ. — Obstructed Arteries sometimes bring on a Gangrene. — Ligatures on y^e Veins will bring on a mortification, whether it is necessary y^t it sho^d be preceded by Inflamⁿ.

Weakness another
cause.

Weakness also, produces mortification with^t Inflamⁿ; thus in wounds attend'd with a great loss of blood a Gangrene takes place with^t Inflamⁿ. — And in old People more Weakness will bring on a mortification.

Sedatives also

Large Extravasatⁿ of blood will bring on a Gangrene in consequence of y^e Mortification. — The Applicatⁿ of Sedatives, will produce a Gangrene with^t Inflamⁿ; thus Salts of Lead have produced it. — Any thg. in short, y^t has y^e same effects w^{ch} Inflamⁿ to compress y^e Parts, also great Weakness whereby y^e action of y^e vessels is destroy'd will produce a Gangrene with^t Inflamⁿ.

Of Inflammation

Prognosis

Gangrene & mortification happens w^o if skin is of seat of the Disease, or w^o if Inflammⁿ is violent so if. if P^t is greatly compressed, or w^o any consid^{le} external Pressure is apply^d.

Schirrus & Cancer

The last Termination is by Schirrus & Cancer.

how form'd.

"W^o if Inflammⁿ is carry'd off, but a quantity of Matter is left in if secretory Vessels of some Gland, occasion^g a hardness & swelling. This often continues a consider^{le} Time with^o Alteratⁿ; but upon if applicatⁿ of any Stimulus, if matter deposits Ferments into a peculiar Fluid inflam^g if P^t & produci^g an Ulceration'd Ulcer call'd an open Cancer. In this Ulcer, good Pus is never form'd, but if P^t is exhaust^d & destroy'd by if pain, if evacuatⁿ & if Stimulus arisi^g fr^m if cancerous Matter absorb^d.

It frequently happens if. after Inflammⁿ a quantity of if fluid secreted, or if Gland suppurat^d continue in if secretory Vessels, w^o occasion a hardness & swell^g in if P^t; this is evident; for in Schirruses we have been able to take out if matter fr^m those Glands — In Schirruses of if Breast, a quantity of coagulated Milk is found.

This hardness is very diff^t from if Callus before mention'd; for if. is occasion'd merely by if thickn^g of if P^t, whereas a Schirrus never happens but in a Gland. Formerly, all condition'd Ulcers were call'd Cancerous; but there is this peculiar^y in Cancers, if. if produce ferments in if system, so if. if if P^t is cut off, an Ulcer of if same Nature will arise in a diff^t part of if Body. — Some Surgeons who have been so hardy as to taste if Cancerous matter have had an Ulcer of if kind form'd in the Tongue. — Sometimes if Schirrus continues for a long time

with^o any Alteratⁿ in its size; at other times, it increases considerably, especially if any Stimulus is apply'd to it whereby a greater secretion is form'd in if part hereby a fermentatⁿ takes place & a Cancer is produced. — Stimuli if. have this effect are of several sorts, such as Friction, Stimulat^g Gums & Essential Oils

There is one particular reason w^o Schirruses are very liable to become Cancers, & if. is, w^o Women lose their menstrual Flux, for there is then an alteration made in if Action of if Vessels, and an addition of Fluids made to if Part.

Diff^t Terminatⁿ of Schirrus.W^o most apt to be cancerous.

Of Inflammation

Schirrus arises also with^t any previous Inflammⁿ for if proper Fluid stagnat^s in the Gland, or Extravasation for Contusion, or venous Plethora. Schirrus happens for a venous Plethora, this is if case, ~~if~~ if Veins are very small & therefore if Blood is thrown in a larger quantity on if Heart wth not being able properly to free itself, occasions a greater distention of if Veins. — This takes place particularly in if Melancholic Temperam^t, & those Persons are most liable to have Schirruses form'd into Cancers.

Stagnation of proper Fluid Schirrus may arise with^t previous Inflammⁿ wth if Fluid stagnates in if Gland, as Milk stagnates in if Breasts of Women — Also in if Venous Plethora by Extravasatⁿ wth frequently happens in such a Temperam^t. —

Terminatⁿ of Cancer — The Cancerous Matter wth once form'd produces in consequence of its stimulus considerable Pain, & by its fermentatⁿ destroys if surround^g Part, producing an Ulcer wth is seldom or never heal'd — And this matter being absorb'd into if Blood occasions an increas'd action of if Vessels; so if partly by if Pain, & partly by if constant stimulus thus apply'd to if Vessels, if Patient is daily weaken'd & is at length cut off. — This is if worst & most disagreeable of all if Terminations of Inflammⁿ.

Of Cure of Inflammⁿ

By Simple Resolution

The Cause must be removed

We come now to if Method of Curing in Inflammations.

It is evident, if Simple Resolution is of all others if happiest Terminatⁿ of Inflammⁿ. in order to this, we must in the first Place, remove if Cause, if produces or continues the Inflammⁿ; for if if Cause is constantly apply'd if the Inflammⁿ stop'd by any means be taken off, it will be reproduced again — Thus wth General matter inflames if Vessels, if Matter must be destroy'd in order to cure if Inflammⁿ. — If a quantity of Matter distends any part, if Matter must be evacuated in order to remove if Inflammⁿ caus'd by it — If any Stimulat^g substance such as Castharides occasions an Inflammⁿ, it is manifest if Cause must be removed in order to relieve if Inflammⁿ.

We are now particularly to consider, if Means whereby these Causes may be removed.

Of Inflammation

Distention Distention is one cause of Inflammation while it continues will prevent of Inflammation from being removed — Some indeed have attempted to cure of Inflammation occasioned by fractured or luxated Bones before the fracture or luxation were reduced, but in general with't success — This cause must be first removed to cure of Inflammation.

By covering of Part for Stimulus Where an Inflammation is caused by application of a Stimulus to a Membrane or any sensible Part, it may be prevented from acting by covering of Part with some Oleaginous Substance — Thus we defend of Urethra from of Stimulus of of salts contain'd in of Urine w^h in an inflamed state, by inject'g Express'd Oils to line up Passage. — Thus in of Dysentery, w^h continued by of Stimulus of of salts be in of Food, mucilaginous substances or Express'd Oils will form a proper cover for of Intestines for their Abrasion.

Now these two classes of substances, Express'd Oils & Mucilages of vegetables will adhere closely to of Part when they are apply'd so of. they are with difficulty removed, & are free for any Stimulus of their own; but then, to be perfectly pure, The Oil must be freed for Essential Oils, from Impurements & Mucidity, otherwise it will do mischief by of Stimulus it is subject of. — The purest Express'd Oils are those of Animals, having less Express'd Oil-mix'd therewith, also Spuma Lactis, & some oil of vegetables may be us'd, such as of. obtain'd for Almonds & Olives.

The Oil of is most proper for this purpose is of. w^h is fluid only in of heat of of human Body; thus Hogslard w^h injected into of Urethra will adhere more powerfully than Oil of Olives.

given Internally In some cases we give these Oils internally in order to their being secreted in of inflamed Parts, but they are never so efficacious as w^h immediately apply'd to these Parts — Thus in of Catarrhs we give oil in order to defend of mucous Membranes for of Stimuli of of Neutral Salts secreted there. — For mucous glands secrete this Oil, & therefore it can be secreted but in small quantity in of Part affected. — It is best to mix Oil & mucilages together; for the mucilages are not so effectual & therefore must be given in greater quantity, yet they agree best with of Stomach.

Of Inflammation.

Mucilages may be made of Gum Arabic, Quince seeds &c dissolved in water.
 By Med. destroyg Irritability Another means we use to prevent of Causes of Inflamm. from actg is, to apply those
 Substances of destroyg Irritability — by w^{ch} they will be prevented from actg so
 powerfully as otherwise they w^d. — The principal of these is of Bark, w^{ch}
 w^d applyd to of Stomach in sufficient quantys will take off of Effects of Stimuli.
 — Thus in a Puerr, where a large secretion of watery Fluids loaded wth neutral
 salts cause a considerable inflamⁿ in of Uter, if of Bark is taken so as to destroy
 of Irritability, tho' the same Fluids are secreted, yet of Inflammⁿ is check'd.
 — These not always proper Yet these Medicines are far from actg in all cases in a proper manner; for they
 do not lessen of distinction of of Part; In of Venereal Disease also, tho' the Inflammⁿ
 is abated, yet the Cause is not at all removed. — Besides, there are some cases in
 w^{ch} it w^d be improper to remove of Inflammⁿ, as in of Venereal Disease, for
 by taking off of Inflammⁿ you take off of Pus, & whereby of Disease is cured.
 By Med. producing an equal Circulatⁿ We observ'd of internal Inflammⁿ by too great a flow of Blood causg a distinction
 of of vessels in of Part; now we have a set of Medicines endow'd with of property
 of taking off too great a Circulatⁿ from a particular part, by relaxg of whole vessels
 thro' the Body, by means of w^{ch} an equal Circulatⁿ takes place; these are,
 Spicaeantha, Rattlesnake root, Squill, Neutral salts, Preparat^{ns} of Castoreum &
 cold water. — That such a Relaxatⁿ does take place is evident, for not only a sweat
 breaks forth, but also of vessels of of Intestines are open'd so of a Stool is produced.
 All those Substances are apt to make of Patient sick if given in large Doses, but if
 do not operate so efficaciously w^d given in such quantys — This sickness
 may indeed be prevented by giving of wth warm water, but their Effects are
 thereby counteract'd. —
 By abating of Distinction We observ'd, of of Inflammⁿ was kept up by of distinction of of smaller vessels; but if
 if they are not distinguished beyond of Tone, this is not of itself sufficient to maintain it,
 tis of Overdistinction of of vessels, of keeps it up — Also, if it was maintained caus'd
 to of tightness of of Part, now w^d this Distinction is remov'd, of Inflammⁿ is also taken off.

Of Inflammation.

The only substances we can apply to relax ^{of Part & state of Tension} are, ^{warm water} Water & Oil; and these can only be apply'd to of skin; for of Internal Pts are constantly supply'd with as much Water & Oil as they can take up. — In of applicatⁿ of these to of skin they must be of of degree of heat of prevails in of human body; for if it be hotter, of heat will stimulate of Pt; whereas cold will rather cause of skin to contract. Some apprehend of Oil will do mischief but this is an apprehensⁿ founded merely on Theory. — These are apply'd in two ways, in Tomentaries & Pultices; in of former, Water is only us'd; but in of latter we mix Oil wth of Water. — But compress'd Oils have sever^{al} disadvantages, for they are frequently mix'd wth of Spontaneous Oils, or are Rancid, or Impermeable; they are liable to become rancid by of heat of of Part, so of there is a necessity of chang^{ing} them frequently — These kinds of of Applicatⁿ are of great service in External Inflammⁿ.

We have observ'd, of Resolution is perform'd sever^{al} ways; tis either perform'd simply, or by evacuatiⁿ of Mucus, or by Metastasis — the means of tak^{ing} it off by Fever does frequently more mischief of of continuance of of Inflammⁿ —

Simple Resolution is perform'd by weaken^g the motion of of Cutaneous; this is done by Evacuatiⁿ w^{ch} may be done either by Bleed^g, or by increas^g of secretions. — The more suddenly of evacuatiⁿ is perform'd, of greater is of weakn^g of follows; thus, if a large Abscess is open'd, & of matter is taken out slowly, of Part is not much weaken'd; but if you take this matter away at once, of Part is weaken'd many times so faintly. — In of same manner, in Bleed^g, if you take away a large quantity of Blood thro' a large Orifice, you weaken of Part greatly; but this is not of case w^{ch} if same quantity is taken away at diff^t times & from a small Orifice. In kill^g of Animals they will bear to have a much larger quantity of Blood taken away from a small Vein, y^t out of a large one. — Bleed^g does therefore much more suddenly weaken of vessels y^t promot^g any other secretion w^{ch} ever. If there is an Inflammatory Diathesis, or if of Part is very strong, taking away a large quantity of Blood, even sometimes ad deliquium, will greatly relieve of Disorder, & sometimes cure it — But if of system is weaken'd, an evacuatiⁿ from of Pt itself is of more service.

Of Inflammation

In Bleedg. we are to cons^{der} of strength of y^e system in gen^l. & also of action of the vessels — In a strong action of y^e vessels bleedg in general is of service, but where y^e system is weak tis of most use to bleed in y^e pt^s affected.

Evacuati^{on} by
Purg^{ing} w^h is d^o.

The whole of y^e vessels are emptied by Purg^{ing}, & consid^{erably} weakened thereby. But Purg^{ing} is not equally useful in all Inflamm^{ations}; for by stimulat^{ing} & Irrit^{ing} it causes a greater quantity of Blood to circulate in y^e Internal Pt^s, & therefore is not so useful in Internal as in External Inflamm^{ations}. — W^h the Belly is bound, & a consid^{erable} quantity of Faeces are collected they may do more harm than if Stimulus of a Purgative, but then they are to be given in small Doses & all Stimulat^{ing} Purgatives are to be avoided, tho' they may be freely us^d in external Inflamm^{ations}; these lenient Purgatives are Neutral Salts, Paster Marma, & sometimes Salap, w^h is if most stimulat^{ing} we can make use of.

By Sedatives

Another class of Medicines whose immediate action is to weaken y^e vessels are of Sedatives. — The first set of these are such as by their immediate action weaken y^e vessels, ^{then are} of Acids — All acids may be us^d for this purpose, but those y^e are most commonly in use are y^e Vitriolic & Muriac^{id} Acids together wth y^e vegetable Acid of Lemons; these last are more agreeable to y^e stomach on acc^t of y^e Essential Oil y^e is mixed therewith. — These may be of some service, but we do not depend on y^e for a Cure. — Warm water & Infusion of *Sarsaparilla* are sometimes of use, but we seldom apply y^e to any great Advantage unless where y^e Inflammatory Diathesis has continued for a consid^{erable} time, then they are of service; thus after a large use of Mercury in y^e venereal Disease, w^h if Venereal is continued we give an Infus^{ion} of Sarsa to take it off. — When y^e stomach is loaded wth indigestible Food, Tea & Coffee are apply^d wth advantage to take off y^e strong act^{ion} of y^e vessels. There are other Med^{icines} y^e weaken consid^{erably}, such as Med^{icines} producing Equable Crudit^{ies}, but it is a question whether their weaken^g Influence does not depend entirely on y^e Evacuati^{on} they produce.

Warm water &
Sarsaparilla

Tea & Coffee

Of Inflammation

Salts of Potash We have some very powerfull Sedatives such as Salts of Lead & Tin, but we can seldom apply 'em because their use is attended with considerable danger.

Sedatives to be used & apply'd The next class, are those Sedatives w^{ch} we apply to *of Inflam^d*. — But it is to be observed, if many Medicines are sedatives to *of Inflam^d* w^d prove Stimulants if apply'd to *of Stomach*; thus Alcohol is a powerfull Sedative w^{ch} externally apply'd but as powerfull a Stimulus w^{ch} internally Administer'd — this is us'd with Advantage in *of Vesiculas*. — The first set of Med^s in this class, are such as have but little Astringency, such as Wormwood, Matricaria, white Bryonyke;

Antispasmodics these Antispasmodics have consid^{le} effects; I have often seen *of Putties* made with those Ingre^{ts} have been of consid^{le} use, where common ones have had no effect; & as they have but little Astringency there is no danger to be expected fr^m their use. where we don't want to keep up *of Inflamⁿ*, these apply'd wth warm water & Oil are of consid^{le} use.

gentle Astring^{ts} The next set of Med^s have consid^{le} Astringency & therefore may in some Cases do much harm, tho' in others *of* may be of gr^t service, these are Alids dulced, *of* of stone, flower of Calx, Red Roses, & such slight astring^{ts}. — If *of* *of* immerd in the cellular Membrane are consid^{ly} inflam'd & *of* Skin also distended, then these Substances by hardning *of* Skin cause it to press more on *of* inflam'd *of*, & thereby do much harm: but where *of* Inflamⁿ is not risen to a great height so as to distend *of* Skin, they do great service. — Thus in Fractures, or where *of* are lax as in Inflamⁿ *of* *of* Eyes lids & Tonsils they may be properly apply'd. — And lastly, in Inflamⁿ *of* *of* Skin itself where *of* don't stimulate, *of* may be us'd — But where *of* *of* are very loose they are liable to bring on a Morbiferaⁿ.

Strong Astring^{ts} The last set of Med^s are still more astring^{ts}, such as *of* Salts *of* *of* Metals, but we seldom use *of* for *of* reason last mention'd. — There have been some hardy enough to use these in great Inflamⁿ & sometimes had *of* Luck to succeed; but they produce us many Gangrenes — ^{thence} except in Inflamⁿ *of* *of* Eye, they are not to be us'd wth safety.

Of Inflammation

Rising 2^d Inflammⁿ We have observed, of a secondary Inflammⁿ arising frequently by means of removing the former one: this we often imitate by raising an Inflammⁿ near of former inflamed pt. — thus we often apply a Blister to y^e side with success in y^e Pleurisy — we observe y^e if nearer of Inflammⁿ is raised to y^e pt. affected y^e more effectually it relieves y^e former Inflammⁿ — thus a Blister applied to y^e side is more effectual y^e 10th applied to the Leg. — But as an Inflammⁿ produces an Inflammatory Diathesis so this 2^d Inflammⁿ

may increase it; therefore where y^e Diathesis runs high, if y^e Blister does not relieve y^e first Inflammⁿ, y^e Patient will be in great danger of being destroyed by y^e increase of y^e quantity of Blood thrown into y^e Brain — this is not therefore a certain method of cure. It is best to weaken y^e too great action of y^e vessels before y^e 2^d Inflammⁿ is raised.

— I have seen a Blister cure a violent Angina with y^e previous bleedg, but there was a great risk run of destroyg y^e Patient thereby. — We have many substances y^e may be employ'd for this purpose, such as Cantharides, Mustard seed, Volatile Alkali wch may be apply'd in diff^t forms. — Sometimes y^e Scarskin is raised and an Evacuatiⁿ takes place, as in y^e applicⁿ of Cantharides; & sometimes there is no such Evacuatiⁿ, as in y^e applicⁿ of Mustard seed &c. — Those substances wch are also Antispasmodics will be attended with y^e best effects, such as Camphire & Volatile Alkali, wch are apply'd with considerable advantage after y^e strong action of y^e vessels are taken off.

By promoting the Evacuatiⁿ from y^e mucous Glands We are in y^e next place to consider, how we are to manage y^e Evacuatiⁿ if taken place from y^e Mucous Glands — We observe, y^e if y^e Glands in or near y^e affected pt. secrete plentifully y^e if Inflammⁿ was taken off; we are then to endeavor to keep on this secret of mucus. — Substances stimulatory of Mucous Glands have been employ'd for y^e purpose; but we have no substances y^e do not contain a quantity of Essential Oil y^e can be secreted by those Glands. — The Properties of Essential Oils differ considerably for y^e stimulus of some go off in a short time, & therefore are not so liable to produce Inflammⁿ, others have their stimulus continued for a considerable time, & are therefore very inflammatory — Of y^e first sort are y^e Liliaceae of Linnaeus, y^e Lilly tribe —

Of Inflammation

Diff. Subst. used
for this purpose

The common Lelly has but little effect in this case; if Colchicum w^d is a species of it, has been lately bro't into practice; but if Squill w^d belongs to of same species is a powerful Expectorant & has of least tendency to produce Inflammⁿ.

W^h this Med^t is given, it will promote secretions thro' all of Glands of Body, & particularly in of inflam'd Gland w^h ^{always} secretes in of greatest quantity.

Many other Subst^s have been employ'd for this purpose such as of Gumst & Resins, these may be us'd where of Inflammⁿ does not run high; but when it is of case we sh^d prefer of Squills. — Sometimes we may apply Subst^s of this kind to of inflam'd Glands of Body, as in an Inflammⁿ of of Lungs, we can make an Infusion of Aromatic Herbs of Steam of w^h may be drawn into of Lungs, w^h will gently stimulate of mucous Glands there.

To defend those
Islands from of Salt

In of heat place, we are to endeavor to defend of mucous Glands from of Stimulus of of Neutral salts, w^h might thereby increase of Inflammⁿ. — This is done by Express'd Oils & Mucilaginous Substances. — If the Glands do of themselves secrete a suff^t quantity we have no occasion to make use of Stimul^s of Substances.

How to stop of secretions
after of Inflammⁿ is over

It frequently happens, of of Glands being consid^{ly} weakened by their large secret^s do still continue to secrete their Fluids in consider^l quantity after of Inflammⁿ is removed — thus Catarrhs, Gleet, Dysenteries are long continued after of Inflammⁿ is abated, & it is one of of most difficult points in Physic to put a stop to of Secret^s.

Strengthening of system
applicⁿ of Astringents

— We make use of a variety of means for this purpose, as, strengthening of system in gener^l, & apply^g Astringents to of pt. affected as in Gleet & Catarrhs, but of Application of Astringents is not much to be depended on, as their complet^s frequently return after of use of of. — Particular care must be taken, of of flow of blood w^h takes place in of pt. affected is removed before Astringents are apply'd. otherwise we may do a great deal of mischief — but we shall speak more of this hereafter. Astringents apply'd to of system in general have of same effects w^h topical Applications.

Of Inflammation.

raising a fresh
Inflammation in a part.

Another Method of Stopping these secretions is singular. w^{ch} is, to raise an Inflammⁿ in
of Pt. by Stimulat^g Subst^s; these are apply'd to it by the system in gen^l; these Med^s are Balsams, w^{ch} by bring^g on an Inflammⁿ Discharge
cure of Disorder; these have also some degree of Astring^g. — Is it you will
meet with many Instances of it can't be relieved by any methods yet known.

Of a manner of
that suppuratⁿ.

If these means of Resolutⁿ are not apply'd in proper time it is many times
impossible to prevent a Suppuratⁿ, & this begins to take place sometimes on the
3^d or 4th day; if applicⁿ of any means of Resolutⁿ is then useless — Indeed
it sometimes happens of most powerf^l means at it beg^g will not prevent a
Suppuratⁿ. — And there are some cases in w^{ch} we w^d not attempt to take off the Inflammⁿ
as in it of the skin, w^{ch} if it is taken off by Resolutⁿ we cause a Fever to run thereby
in such a case, Suppuratⁿ can't be avoided — In such cases we shall show you in w^t

If too violent means
of solution be used

manner of Suppuratⁿ is to be manag'd. — If the Inflammⁿ is so violent as to threaten
a Gangrene, we must employ the means of solution in order to bring on a Suppuratⁿ.
we must relax the Pt. by Fomentat^{ns} & Poultices to take off the over violence of the Inflammⁿ;
and sometimes there are not suff^l so if we are oblig'd to use evacuations; particularly
in cases where very Stimulat^g causes do maintain the Inflammⁿ; these must be either
remov'd, or their force abated by the applicⁿ of the Bark, by purg'd Oil, & if a Gangrene
may be prevented. — On the other hand, if the Inflammⁿ is slight, & the Suppuratⁿ

If too slow, stimulus
must be apply'd

goes on slowly, so if it is a consid^l time bef^o it is chang'd into Pus, by applying
by the applicatⁿ of Stimulat^g Subst^s to increase the Inflammⁿ. — For this purpose
diff^l Subst^s have been apply'd, some to the system in gen^l to increase the action
of the vessels, such as Wine, Bark, Resinous Subst^s & Spinal Oil, or Plants contain^g
it. — There are likewise a class of Plants w^{ch} contain a particular Stimulat^g Juice
w^{ch} has this property; these are Belladonna, Solanum, Nicotiana, Hyoscyamus &c.
the others are of Aquatic Umbelliferous Plants, if Cicuta &c. these apply'd to the stomach
occasion a considerable action of the vessels, whereby Suppuratⁿ has been perfected in a short time.

Of Inflammation,

Applicates of

Emollient Subst. of Special Oils, such as Linseed, Tannagreek seed &c. & even common seeds will have

to it pt.

It has been usual to apply to it itself Farinaceous seeds containing a quantity of Special Oils, such as Linseed, Tannagreek seed &c. & even common seeds will have but a small quantity of oil as Flax &c. But it is not clear if these last have a suppurative quality — But the former may be apply'd with consid^d Advantage sometimes it produces a singular effect, by their stimulus if pt. of Inflammⁿ is taken off & if Abscess wholly disappears, but this seldom happens, for it can hardly be supposed, if of Lymphatics by w^{ch} this absorption is made sh^d be preserv'd whole, while if rest of it is destroy'd. — But it is better in all Inflammⁿ to let it suppuratⁿ go on slowly, up to urge it too violently, lest it sh^d proceed too far & a Gangrene sh^d be hot on. — Some have made use of still more stimulatⁿ substances, such as Resinous Subst^s & Spirit^s Vitis but it is very seldom if small powerful Stimulants are necessary.

After a Quantity of Pus is form'd, if next thing we are to do is to take it out, lest if pt. sh^d be destroy'd further up w^{ch} is necessary; & then if Questⁿ arises, Whether we sh^d leave it to discharge itself, or form an Opening for it?

Generally, a great Pt. of it w^{ch} was inflam'd is destroy'd by it suppuratⁿ before any granulatory Flesh springs up; the cellular membrane particularly sh^d be destroy'd, for we find in it Inflammⁿ of a Lymphatic Gland, there is a quantity of Pus form'd in diff^t Pts of it. Gland, so if one pt. is evacuated, yet if Inflammⁿ goes on in other Pts where it Pus is lodg'd in diff^t cells; In of same manner there may be Pus lodg'd in diff^t cells of it cellular membrane w^{ch} have no communicatⁿ with each other, & whereby if Inflammⁿ sh^d be kept up, after pt. of it Pus is evacuated — 'tis best therefore to let this communicatⁿ be form'd betⁿ all of cells, before if evacuatⁿ is made. — But then we sh^d never run of risk of if Pus do^g mischief by its too long continuance in it. If we open an Abscess too soon, we can easily with a lancet or knife destroy if it are suppuratⁿ; but where if Pus has long it will spread itself among of Muscles,

Of Inflammation

and disband of Membranes; where therefore if Pus is deep seated 'tis better to open it as soon as may be. — If a Abscess is superficial & at of same time very large 'tis best to cut off if whole of if skin if covers it, & not to form a small opening; for if the skin is suffered to remain, a larger quantity of Pus will be formed whereby if Pus will be weakened, & it will be in danger of getting into if circulation & being a Focium.

How to bring
on a Granulatⁿ.

After if Pus is thus discharged, if next thing is, to bring on a granulatory Inflammⁿ: sometimes no such Inflammⁿ arises, but then continues to be secreted a vast quantity of a thin watery Fluid; this particularly happens in Abscesses if have long remained unopened & where a kind of Membrane has surrounded if Abscess — in if case, if it must be scarified & if Membrane cut thro' to make room for a fresh Granulatⁿ. — In more recent cases, it will be suff^t to apply stimulatⁿ Subst^s such as Mercurial Salts; we chuse to make use of those salts if are in a gr^t measure calid^d such as Red Precipitate; Verdigrise has also been us'd in such cases with Advantage.

- to prevent if
spread of if Ulcer

Essential oils, such as Turpentine, & many of if Resins have been us'd with success. Sometimes such an Inflammⁿ arises as causes if Ulcer to spread; this is gen^{lly} occasioned by some stimulatⁿ Substances if are ^{applied} too of surface of if Ulcer — In some cases these stimulatⁿ matters may be destroy'd by subst^s if will chemically combine with them, & sometimes w^h are destroy'd no more will be generated. — Another Method of preventⁿ their effects is by applyⁿ Express'd Oils & Ointments with coverⁿ of surface of if Ulcer & thereby depends it from their influence; But where if Bone is laid bare, then are very subject to become rancid & to bring on a Caries. — We also apply the Bark to if Stomach to destroy if Irregularity of if system. — Sometimes we apply such Stimuli as bring on another Inflammⁿ to counteract this suppurative Inflammⁿ.

To prevent if
Carie.

If a proper Granulatⁿ takes place, we have nothing to do, but to cover if Ptⁿ with air. If the Granulatⁿ rises too fast & becomes spongy, we must apply Retinents such as Molarine Salts. — The Ulcer must be kept clean fr^m all Putrid Matter. — And after the Ptⁿ is fill'd up, if Scarf-skin may be bro't more readily to cover it by if application of Retinents to if sides of if Ulcer. — But many times 'tis difficult completely

Of Inflammation

to cure of Ulcer w^{ch} it is bot to a small compass, especially if it assumes a round figure; this may be remedied by alter^g its form by a fresh Incision, & also by apply^g some coagulat^g subst^{ce} to its surface such as sp^{ts} of Wine.

Of Gangrene

— how to prevent its spreading

The last Terminalⁿ of Inflammⁿ is in Gangrene. — This spreads in consequence of if Solid matter act^g on if surround^g Pt, weaken^g & then destroy^g them — In order to prevent its further spread tis necessary, to keep up the strength of those Parts; this is done by if applicatⁿ of Wine, Musk, Camphire & such Stimulants to if stomach & by an ext^{er} applicatⁿ of Essential Oils such as Turpentine, & by scarifying if Pt to if quick — But we have of late found out a much more efficacious Med^{ce} w^{ch} is if Bark, w^{ch} partly by its strengthen^g Power, & partly by destroy^g if Simulacra acts as a Sedative; it will cause an Inflammⁿ round if gangren'd Pt, & promote a separation of them.

Of Schiurus

— how to be treated

The last Terminalⁿ is by Schiurus. — If a Gland is inflamd, & if Inflammⁿ is taken off by Resolution, then a Schiurus frequently takes place — Where it can be conveniently done, tis best to bring if affected Gland to suppuratⁿ for a Schiurus, ^{then} seldom takes place. hardness is indeed frequently left in if Pt after suppuratⁿ but if is very difficult for Schiurus. — W^{ch} a Schiurus is found, there have been means us'd to take it off, w^{ch} is by if applicatⁿ of Stimulat^g Subst^{ce}, such as Gums, Resins, Mercury, if Cicuta, Belladonna &c.; By these means a quantity of blood is thrown on if diseas'd Pt so as to render if fluid & proper for Resolutⁿ. — But this method is very dangerous, as it many times ends in a Cancer. — so if it is a gr^{at} question whether such Med^{ce} shod be employ'd in Schiurus.

The best method is to take if away by if Knife if if Seduatⁿ off if Pt will admit of it — but if they are small, not increasing, & not attach'd to any Pt, if best way is to let if alone, as it is possible if may remain in if Seduatⁿ for if Part's life time — If they once become painful, the Cancer is begun.

Of Cancer.

— how treated

W^{ch} a Cancer is found, tis probable if Part is destroy'd thereby — the only Med^{ce} if have been serviceable in such a Case, are those Med^{ce} if beget good Suppuratⁿ in other Ulcers, such as Metalline salts apply'd to if part,

Of Fevers

and of Scilla or Belladonna to of system in gen^l. — Some have been cured by these means. — These Med^s have no peculiar effects in cancers more or less in any other Ulcers, they don't by any means destroy or cancerous matter in any manner of Mercury does of Venereal Poison. — They seldom cure; at first indeed some think Pus is generated & if Pus is relieved, but as he becomes accustomed to it they lose their effects & if Ulcer spreads more & more. — Another means is by destroy^g of Sensibility of of P^t by of Appl^y of salts of Lead & Im, this may give some ease, but can never effect a cure.

Of Fevers in general.

A Fever is a Disease of affects of whole system & is not confin^d like Inflammⁿ, to a particular pt. of of Body — It frequently affects some Pts more than others, & for thence a variety of diff^t symptoms arise. — And it sometimes happens, if w^t of greatest pt. of of Body is affected w^t of Disease of some particular Pts may be free from its effects. — Sometimes of Urine is very clear, if Kidneys be affected w^t of Fever, & at other times of Urine may be in its natural State, of Disorder not affect^g those Pts — Sometimes of Tongue is affected w^t Fever so as of of Glands there afford no secretion, & is in consequence thereof cover'd w^t a white Mucus, at other times w^t of Fever prevails in other Pts, of Tongue is in its natural State. — Sometimes of Pulse beat quickly, & at other times they are slower than in their ordinary State. — We cannot therefore pronounce a Fever to be present by any one symptom of. may take place, for there is no symptom of characterizes it but may be occasionally absent. — Some say of a cold of Cold is absolutely necessary to constitute a Fever, others consider an increas'd Heat as its distinguish^g characteristic; others again suppose of an increas'd action of of Solids constitutes a Fever — But as either of these

Fever a Disease of of whole system but not affect^g all Pts equally.

No one symptom constitutes a Fever

Of Fevers in general

Symptoms separately consid^d may happen in a healthy State, & some of these may not happen in Fevers I don't chuse to make either of them a Diagnosis of a Fever. — Sometimes a Fever takes place with^o any kind of Cold, as happens sometimes in Intermit^{ts}. — At other times no increase of Heat succeeds if Cold Fit, as is of late with Persons y^t die before y^t hot Fit comes on. — So, it is not necessary y^t there sho^d be an increas^d quickness of y^e Pulse to constitute a Fever, as I have seen all y^e symptoms of a Fever present w^o y^e Pulse only beat 15 times in a minute; this was a symptom of an Approach^d Delirium. — It likewise happens y^t Cold, or Heat or quickness of y^e Pulse may take place w^o no Fever is present. We generate a much less quantity of Heat in sleep than at any other time. In Exercise, y^e Body generates a degree of heat beyond w^t it naturally enjoys, & this is accompanied with an increas^d quickness of y^e Pulse & yet here is no Fever present.

A Fever, we said was a Disease of y^e whole System, & accord^g as diff^t Parts are affected, diff^t symptoms arise; we can only shew you w^t these symptoms are & w^t changes these symptoms indicate to take place in diff^t parts of the Body.

All Fevers are form^d of Periods, or certain seasons in w^{ch} y^e Part^s becomes worse, & y^e Disease increases; & other seasons in w^{ch} it is either carry^d off, or reliev^d.

In continual Fevers there is an Exacerbation comes on every evening, w^{ch} is follow^d by a Remission on y^e follow^g Morning; in some others, y^e Exacerbation comes on in two or three days — Indeed a Fever may consist of only one Period, but then y^e Disease is of very short continuance & is never prolong^d beyond 24 Hours.

In treat^g of Fevers, I shall describe one single Period; then shew how these Periods follow or are intermix^d wth one another; & shew y^e symptoms ^{to} belong to the Fever itself.

Of Fevers in general

A Period divided
into 3 Stages

I divide ϕ Period into three diff. stages, the Cold Fit, ϕ hot Fit, & ϕ Crisis.
By ϕ Cold Fit, I don't mean, that there is ϕ sensatⁿ of cold always felt, for many
times this is not ϕ case, this term might therefore be apt to mislead Persons.

Symptoms of ϕ
first Stage

The symptoms of ϕ first Stage are,

- "(1) Languor, weariness, weakness, Insensibility of ϕ Symplicities, Cold & Trembl^g, Pain in ϕ Back,
" (2) Paleness; a dry, foul Tongue & Thirst; transparent Urine; Costiveness & suppressⁿ of
" other secretions; paleness & dryness in Ulcers; a quick, small, intermittent Pulse; Pain
" in ϕ Limbs, Joints & Forehead; Blindness, Delirium.
" (3) Anxiety, Oppression & swelling in ϕ Praecordia; quick & laborious respiratⁿ, something
" with Cough; Rigor & Honor; Stultities, Loss of Appetite, Nausea, & Vomiting."

First st of sympt

The first symptoms are Languor, weariness & weakness; the Pat^t. finds himself incapable
& unwill^g to perform any Exercise, & is as weary as if he had undergone some
laborious Exercise. — The Symplicities become Insensible, sometimes to ϕ degree
 ϕ ϕ have been burnt with hot Bricks with^t ϕ Patient feels any pain; sometimes
 ϕ Insensibility spreads to ϕ Joints & even thro' ϕ whole Body, so as to destroy ϕ Pat^t.
Cold is felt w^h both in degree & ϕ feelⁿ greater ϕ ϕ w^h naturally prevails in ϕ Body.
The Natural Heat w^h is 98, now falls to 96 & in some cases to 94, ϕ Pat^t. then feels
himself immensely cold: tho' ϕ Pat^t. sometimes complains of cold w^h ϕ Heat is raised
to 99 or 100 degrees; in this case, as always happens w^h a gr^t degree of cold is felt,
a trembl^g comes on. — Pain in ϕ small of ϕ Back is also felt, w^h is sometimes
extremely troublesome, this is a kind of a gnaw^g Pain. — The Pat^t. becomes in
all ϕ s Pale, such as ϕ nails, cheeks; & thin thro' ϕ whole Body, becomes more or less
contracted. — The Tongue becomes dry, & covered with a Mucus w^h accord^g to ϕ state
 ϕ ϕ Blood is of diff. colours incli^g more or less to black as ϕ Blood is verg^g to Putrefactⁿ.
— This is always accompan^d with Thirst. — The Urine instead of contain^g ϕ
Substⁿ usually found in it, comes to be perfectly transparent, sometimes high colored
& sometimes perfectly colorless, so ϕ ϕ kidneys don't separate so viscid a fluid
as usual — Costiveness, & suppressⁿ of all other secretions take place: Pallens & Dryness
in Ulcers, so ϕ from a florid Red they become Pale & little or nothing secreted on their surface.
— The Pulse is frequent & ϕ Artery appears contracted, & sometimes app^r to intermit.

2^d Let.

Of Fevers in general.

There is a Pain in y^e Limbs, & Forehead over y^e Eyes, w^{ch} is evidently external, either in y^e Membrane lining the Sinuses, or in y^e Pericranium — In y^e Joints the Pains appear to be deep seated. The Pat^t sometimes loses his sight, & is at times affected wth Delirium.

1st set.

The Pat^t at y^e same time feels great Anxiety ab^t y^e Praecordia; a great load is felt on y^e Breast, & considerable swelling over y^e Stomach & Abdomen — The Respiration becomes quick & laborious, & as all difficulty of Respiration is attended with a Cough, so it is usually in this case — Sicknefs & Vomiting also frequently take place, together wth spasmodic Affections of y^e Intestines. — There are few Pat^ts in w^{ch} all these symptoms take place, tho' many of them app^r at y^e begining of a Fever. — Accordg^t to y^e violence of these symptoms at any time of y^e Disease, y^e Fever is violent; & w^{ch} they are entirely carried off, it is cured.

The Blood in diff^t states.

The Blood itself may be in all its diff^t states, sometimes very perfect, & sometimes very Putrid, & in all y^e intermediate states betwⁿ those extremes.

The Progress from y^e 1st set of symptoms to y^e 2^d set.

As the violence of y^e Fever is in proportion to the strength of these symptoms, it shews us y^e Alteratⁿ y^e is made by it in y^e Body, & wherein y^e Disease consists. Let us cons^r wth Alteratⁿ these symptoms indicate.

2^d set — the violent state of y^e 1st set.

The first set are, Languor, weariness &c these shew us y^e weak action of the Lymph Power — Sometimes this weakness prevails to such a degree y^e Pat^t dies under it; & accordg^t as this weakness prevails in diff^t pts of y^e Body so Pain in y^e Back, coldness & Insensibility of y^e Extremities take place.

3^d set — the violent state of y^e 2^d set.

The 2^d set of symptoms are, Paleness; a dry foul Tongue &c these shew us the Contractⁿ of y^e Capillary Vessels. — Paleness, shews y^e y^e Capillaries of y^e skin have but little red blood in y^m; y^e Contractⁿ of y^e skin shews also their symptoms —

The dryness of y^e Tongue & Transparen^t Urine shew us y^e these V^{ss} are also contracted so y^e y^e usual secret^s do not take place — Paleness & dryness in allens shew y^e y^e vessels under y^e skin are contracted & do not secrete in y^e quantity y^e did before. Pain in y^e Limbs also shews y^e y^e Capillaries y^e ran thro' the membranes are in a contracted state, in consequence of w^{ch} they suffer y^e pain of Distention by the blood y^e is still circulating thro' them

Of Fevers in general

3^d the blood
circulates in y^e
heart near y^e heart.

Dimness & hollowness of y^e eyes, together wth y^e Delirium, shew y^e y^e Blood in consequence of y^e contractⁿ of y^e capillaries does not circulate in suff^t quant^y thro^{ugh} these P^{ts}, & particularly y^e a suff^t quant^y of blood is not thrown up to y^e brain. The 3^d set w^{ill} an anxiety, Oppressⁿ be shew y^e y^e Blood is circulated into gr^{eat} quant^y in y^e vessels near y^e Heart. — As y^e Capillaries are greatly emptied y^e blood must circulate in y^e larger vessels, unless it is extravasated, w^{ch} is not y^e case. — The symptoms of Anxiety & Oppression alt^h y^e Pleurisia shew y^e y^e Blood is congested in large quant^y in y^e vessels abt^{ut} y^e Heart, w^{ch} being surcharg'd wth blood, is stimulated to more frequent contractⁿ in order to free itself from y^e same. — The quick & laborious Respiratⁿ shew y^e y^e Blood is thrown in great quant^y into y^e Lungs. — The nausea & Inflatⁿ of y^e Intestines shew y^e y^e Blood is accumulated in y^e larger vessels in those p^{ts}.

These are y^e symptoms of y^e first stage. — And we may easily see y^e reason why some of these symptoms may be absent, as all p^{ts} may not be alike affected wth y^e Fever; thus the Tongue may not be affected by it & consequently there may be no dryness there: The Intestines may not be affected thereby, & therefore instead of coolness there may be a Purging. — These symptoms generally take place in proportion as y^e system is affected by y^e Disease.

Before we enter on y^e other stages of Fever, it may be necessary to enquire y^e causes w^{ch} produce this first stage. Some of these we are acquainted wth, tho^{ugh} it is probable we are not arriv'd to y^e knowledge of all y^e causes y^e produce Fever.

Causes
1st Cause

These symptoms are produced by certain Passions of y^e mind suddenly acting, y^e principal of w^{ch} are Fear, Grief & Anxiety. — These have but little effect on strong Habits; but those who are weak & irritable such as childbed Women are frequently affected thereby; & these have been Instances of strong Habits, where their effect had been produced.

2^d Cause

2^d Cold apply'd to y^e Body does certainly produce Fever; thus moist Countries w^{ch} on y^e ant^{ient} are cold have Fevers frequently prevail^{ing} in y^e p^{ts}. We have daily Instances of Fevers produced by Persons suddenly expos'd to cold.

Of Fevers in general.

3^d Cause

3^dly Putrid, Variculous, morbillous Matter or Pus, act^g on ^{or} sensible Pts.
Putrid Matter will produce Fever — I knew an Instance of three Persons who on going
a Bed with putrid Feathers, were all immediately seiz'd with a Fever.
Some say if putrid Vapor aris^g from Human Bodies is more pestilential if^g any other.
This may be owing to ^{an} Essential Oil w^{ch} w^{hen} putrified becomes extremely disagreeable.
This Vapor produces Fever, not by act^g on ^{or} Fluids, but on ^{or} sensible Pts; in ^{the} begin^g
of Putrid Fevers if Blood may be far removed from Putrefact^{ion} its putrescence is not
ab^{ly} affected by a diff^{erent} cause — This Putrid Vapor produces diff^{erent} symptoms accord^g
to ^{the} Degree in w^{ch} it is apply'd. — Variculous & morbillous Matter, produce fever
by act^g on ^{or} sensible Pts; for tho' they bring on a Change in ^{the} Blood by ^{the} Fermentation
they cause in it, yet if Fever is produced bef^{ore} this Change takes place, & commonly
if Fever goes off w^{hen} this alterat^{ion} in ^{the} Fluids is tak^{ing} place.

4th Cause

4th Retention of certain Subst^{ances} in ^{the} Primæviæ, as indigestible Food in ^{the} stomach,
Fæces in ^{the} Intestines — Indigestible Food, such as shell Fish frequently produce Fever.

5th Cause

5th Change of Customs or Climates, to w^{ch} if Body has been habituated, at least owing to
other causes. — This may be likewise owing to a Change of Diet & manner of liv^{ing}; for we
find if^g Person may go to diff^{erent} Countries with^{out} danger provided he lives in ^{the} man^{ner}
if he has been accustomed to. — We observed at Leyden, if^g scholars who liv'd after
if English manner were seldom subject to Fevers, whereas English Merchants who
liv'd after if manner of if Country, were frequently seiz'd by Disorders.

These Causes, except Variculous, morbillous Matter & Pus produce Fever immoderately, with^{out}
any previous alterat^{ion}. — Any two of these Causes act^g together are more powerful in
excit^{ing} if Disease, than one of ^{any} singly — Also, one Cause may produce some symptoms,
but is not suff^{icient} to create a Fever till a fresh Cause is apply'd, w^{hen} if Disease takes place.

Thus Putrid Vapor may produce Languor & Thirst, & proceed no further, till Cold
is apply'd, w^{hen} both Causes act sufficiently powerful; but if a Person w^{hen} he finds if
first Cause begins to act, is careful not to expose himself to a fresh Cause, if symptoms
may soon disappear. But w^{hen} either of these Causes are apply'd in a suff^{icient} degree
a Fever is immoderately produced. — This was manifest in an accident if happen'd
some years ago at if Old Bary Bay, some Fellows bit if Infection of the Sail Distemper

These mostly act
immediately

2 Causes act more
powerfully if one

Instance of 4th
immoderate act^{ion}

Of Fevers in general

with you to Court, where by many were immediately seized with ^{the} symptoms of Fever, & one of ^{the} Judges & many other honorable Persons died of it.

All Persons not equally
liable to Infection,
& why.

If you expose two Persons to ^{the} same Cause of Fever, we frequently find ^{if} one will be affected & ^{if} other shall not: this was ^{the} case in ^{the} Instance just mentioned; many ^{of} were exposed to ^{the} same Infection were not hurt by it. The liability to receive Infection depends on ^{the} Irritability of ^{the} system; if a Person by weakness or fatigue is rendered Irritable, he becomes extremely liable to ^{the} actⁿ of ^{the} cause of Fever: but if on ^{the} contrary, ^{the} vessels are actⁿ strongly, persons are not so soon affected by these causes. — Again, Persons may be habituated to these causes ^{if} they will have but little effect upon you: this was ^{the} case of ^{the} Persons just mentioned, tho' they convey'd ^{the} Infection to ^{the} Court, yet ^{they} themselves were not affected thereby.

Now these causes act, we are at a loss to understand; but we know, ^{if} these causes applied in a less degree will produce similar symptoms tho' with less violence. Thus Fear & Sorrow produce weakness & contractⁿ of ^{the} capillary vessels, ^{if} same may be said of Cold & Putrid Vapor; by w^{ch} it appears, ^{if} they produce those effects by their actⁿ on ^{the} sensible & Irritable P^{ts} of ^{the} Body.

P^{ts} sometimes destroy'd
by ^{the} symptoms of
1st stage

Sometimes it happens, ^{if} ^{the} P^{ts} is destroy'd by ^{the} symptoms of ^{the} first stage, w^{ch} is ^{the} case in Intermit^t Fevers, or by ^{the} increase of those symptoms in some following exacerbatⁿ: as in continu'd Fevers; but where this is not ^{the} case these symptoms are succeeded by ^{the} hot Fit or ^{the} 2^d stage — The symptoms of this stage are,

Symptoms of
the 2^d stage.

" **Rigor & Horror**: Heat risⁿ from ^{the} Praecordia, & diffus'd from thence over ^{the} Body irregularly & unequally & flushⁿ; a strong full obstructed Pulse; or a very quick small one; great Pain in ^{the} Head & Joints; **Sluror & Delirium**; universal sourness; kidneys acting in diff^t P^{ts} irregularly; ^{the} urine high colored, but perfectly transparent; sweatⁿ in ^{the} Head & Breast or over ^{the} whole Body; partial secretions; **Catarrhia**."

Rigor belongs to 2^d
P^{ts}, continu'd to 2^d.

Rigor & Horror are ^{the} first we have enumerated as ^{the} symptoms of ^{the} 2^d stage, tho' they properly belong to ^{the} first stage, but they are continu'd into ^{the} 2^d. It is remarkable ^{if} we then take place to any degree, ^{if} P^{ts} is not destroy'd; we shod from thence conclude ^{if} they are ^{the} first symptoms of relief, or ^{if} ^{the} 2^d stage is at hand.

Of Fevers in general

Heat of the Brain

Frequently while all the rest of the Body is cold, there arises a burning heat at the Brain. This heat diffuses itself over the whole Body, but this heat is far from arising regularly; sometimes the Head becomes hot while the Extremities continue cold; & at other times the Extremities grow warm before the Head; the degrees of Heat are also very different; & sometimes when the heat has prevailed, the cold has again returned, this happens at the beginning of every violent Fever.

Pulse full & strong

The Pulse is now altered; instead of being quick & small it becomes less frequent full & strong — but this is not always the case, for when the symptoms of the first stage are not fully relieved, the Pulse may continue very small even after the hot fit comes on: this at least is obstructed; for when there is a large quantity of Blood thrown into the Arteries it is with difficulty that it passes thro' the Capillaries; this obstructed Pulse is a symptom of it never wanting in Fevers. — When the Pulse becomes free all the other symptoms soon go off. — The fullness of Pulse is, if more obstructed may be felt but it is not so evident in a small Pulse; this is often mistaken for a hard Pulse, tho' tis totally different, for if there was any Blood drawn, there would appear no coagulable Lymph at the top; these different Pulses may be easily distinguished from each other, for if hard Pulse gives a Thrill at its going off, whereas in the obstructed Pulse, if Artery with difficulty contracts itself. — The Blood by now thrown in large quantities to the Extremities, violent Pains take place in the Head & Joints; if the Patient has also contracted Delirium, with red, swollen Eyes, with is owing to the quantity of Blood thrown into the Brain, by which the Patient is sometimes destroyed. — An universal soreness prevails over the Body whereby the Patient feels himself as if he had been beaten. — The Pulse goes off & the skin becomes reddish, but this color does not equally prevail, for sometimes while the Extremities are pale the Head & Breast appears red; & sometimes the skin appears mottled being a mixture of this redness & paleness. — The Urine also becomes higher colored tho' still transparent.

Pains in the Head
Gout, Delirium

Soreness

Kidneys

Urine high colored

— There arises sweat on the Head & Breast & sometimes over the whole Body while the Urine remains transparent & the Tongue dry; sometimes the Tongue becomes moist while the Urine continues in the same state, & sometimes the Urine deposits a sediment while the Tongue remains dry; sometimes a Purgings comes on, & sometimes other evacuations.

Of Fevers in general

strongly & forc'd of blood thro' of Capillaries — This is an effect of nature to remove of Disease, & is only fatal, w^{ch} by of gr^t actⁿ of of Capels such a quantity of blood is thrown into of Brain as brings on Convulsions & Death.

Crisis

The symptoms of of first stage are gradually relieved. At last of Pulse becomes free, all of secretory organs are relax'd, hence of Skin grows soft & moist, of Tongue likewise is soft & moist, of Belly is open, & of Urine in greater quantity, not perfectly transparent w^{ch} is discharg'd, after a little time becoming turbid & opaque, & at last deposits a copious "Sedim^t": The secretions are often greatly increas'd, there arises a copious & universal "Sweat, or a Purg^e, or gr^t flow of Urine."

Pulse free

Head mov'd

The Pulse now becomes free, of blood go^g on regularly thro' of capillary vessels; the secretions are increas'd, the skin instead of of dry and contracted becomes universally smooth & soft — The Tongue also becomes smooth, moist & cover'd wth Saliva — The Belly also is no longer bound, but a Purg^e frequently comes on. — The Urine, instead of contain^g of water, glue & martial salt has a consid^{le} portion of of coagulable Lymph, together wth of Powdery M^t, w^{ch} form a Sedim^t. — Sometimes one of of secretory Organs happens to be more open upⁿ of others, & in consequence thereof there is a larger secretⁿ for thence of any other pt., & as of Heart & Arteries are act^g vastly stronger, of secretⁿs are much greater of in a nat^l state; of contractⁿ of of capillaries w^{ch} was of cause of of increased actⁿ of of Heart & Arteries b^eg removed, of at length subside, & of Fever goes off.

Urine turbid

Fever remov'd by Inflamⁿ

Or there arises an Inflamⁿ or Haemorrhage in some pt. of of Body, of symptoms of of first stage suddenly disappearing, or b^eg greatly diminish'd: or when of Inflamⁿ is in of Extramities, of symptoms of of 2^d stage are remov'd also. — It is difficult to Aut for this Terminatⁿ of Fever; is generally supposed of it is in consequence of a metastasis of of Fibile matter in of pt.; But this is liable to great objections — for tis difficult to conceive how this can take place wth a consid^{le} alteratⁿ in of Capels of of pt. as of matter is circulated equally thro' of system; But tis a rule in Philosophiz^g, never to produce any Cause wth it explains of Effect; But if this was allow'd to be of case, we are not more capable of Account^g for this event.

Hypothesis of metastasis, consid^d

Of Fevers in general.

By Dissections we find, *if* in Inflamm^s of *if* Pleura there is not more *if* of Size of a Shilling *if* is inflamed, now in so small a space there can't be above two or three grains of matter deposited there, we can therefore have but little effect in order to remove *if* Fever. — We frequently find *if* two or 3 Simples abt. *if* these are sufft. to remove *if* Fever. — Besides, we do not find any such matter in *if* Blood vessels, a few cases excepted, such as Varicelous, morbillous matter or Pus. — In Fevers, even of most violent, we seldom observe any putrefactⁿ in *if* Blood. — In those disruptive disorders there is a large quantity of purulent &c matter found in *if* Blood. — We have no hyperim^t to support such a supposition. — And if we suppose an alternatⁿ taking place in *if* vessels where *if* Depositⁿ is made, we have still *if* difficulty to get over, how *if* alteration happen'd in *if* P^t.

Fever taken off
by Antispasmodics

There is another method of taking off Fevers, w^{ch} is P^{er}ificial, by *if* applicⁿ of Antispasmodics — this frequently takes place in Fevers of hysterical women: but perhaps this mayn't be sufft. — But we can produce Inst^t of such kind: taking effect in *if* cold Fit of Intermitt^t Fevers, tho' these Inst^t are not fully to be depended on, because *if* are not certain in *if* operation, & *if* do not take place *if* do a great deal of mischief by increasing *if* Fever. — Thus we have given *if* History of Fevers.

We shall only observe further, *if* of course of a Fever may be initiated by *if* immersion of *if* Body in a cold Bath: for *if* Plung^g into *if* water causes an immediate contractⁿ of all *if* Capillaries, whereby *if* Blood is thrown in upon *if* Heart, but on coming out of *if* water, *if* Blood forces open *if* small vessels — the only diff^y is *if* contractⁿ is not so forc^d as it is in Fevers: but if a Person who is very irritable & delicate was to jump into *if* cold Bath, *if* contractⁿ does not go off, but a Fever is produced.

The Species of Fevers

Ephemera simplex
its History

Fevers are divided into *if* Ephemera simplex & Recurrent Fevers. The Ephemera simplex consists of one Period only w^{ch} terminates within 24 Hours — It has been consid^d by some as ^{intermitt^t} a quickness of *if* Pulse occasion'd by nervous, but in reality tis a violent Disease while it lasts as any Fever where *if* seldom occurs in practice, because there is hardly time to call in Practitioners before *if* terminates, but I have had frequent opportunities of see^g this Disease; I have seen it come on with shivering & coldness of *if* extremities, w^{ch} arose to such a height as to produce Delirium & Convulsions.

Of Particular Fevers

1st of 2^d Stage took place, this also was so violent as to be attend^d with Delirium; at length a Sweat came on wth & carried off of Fever & it never return'd more. — These kind of Fevers frequently happen tho' they are not noticed by Physicians; and many times thro' an Error in Diet or a fresh exposure to Cold, Fevers of w^{ch} are of short duration, prove Ephemerals, are made continual.

Recurrent Fevers
consist of Periods

Recurrent Fevers consist of more or less one Period, no single one lasting more than 24 Hours or till it runs following. — If a Fever lasts beyond this time, then a 2^d Period commences. — There are some Cases in w^{ch} one Period is completed before another commences; & there are others, in w^{ch} 2^d Period takes place in w^{ch} begin^g of 1st. — There is no Fever w^{ch} goes on gradually increas^g for a few Days, & then decreases in w^{ch} some gradual manner — the Inflammatory Diathesis has this gradual Progression but then it is never accompanied wth w^{ch} symptoms of 1st Stage, & this forms an essential diff. betwⁿ it & Fevers — indeed w^{ch} Inflamm^y Diathesis frequently grows worse in w^{ch} w^{ch} 1st Stage, but then there is no relaxation in w^{ch} evening, or any abatement till it is removed. — Fevers consist of more or less one Fit differ

Varieties in Recurrent among young
Intermittent Fevers

in w^{ch} there is a full distinctⁿ between w^{ch} Fits in some; whereas in others w^{ch} Periods run into one another. — The first class are known by w^{ch} Name of **Intermittents**. — In some of these, w^{ch} symptoms of 1st Fit are totally carried off before w^{ch} 2^d takes place; in others, there are some of w^{ch} symptoms remain^g till w^{ch} 2^d Fit comes on. — The symptoms of w^{ch} continue are, a slight Pain in w^{ch} Head, a foul Tongue, some contraction & Calenefs on pt. of w^{ch} skin, with Languor; these may continue after w^{ch} quickness of w^{ch} Pulse & other symptoms are gone. — In the Remittent, w^{ch} Pulse is greatly relieved, but w^{ch} Calor continues quickⁿ, & w^{ch} other symptoms are not carried off bef^e w^{ch} 2^d Period begins, so w^{ch} w^{ch} 2^d Period begins in w^{ch} middle of w^{ch} Crisis.

Remittent

Continued Fevers

The **Continued Fever**, is w^{ch} in w^{ch} one Period begins before w^{ch} former is considerably abated — There is always some relief, but w^{ch} abatement is not easily great, for in this Fever, w^{ch} 2^d Period comes on in w^{ch} middle of w^{ch} hot Fit, w^{ch} w^{ch} symptoms of 1st Stage are considerably relieved. — For Instance, then happens in w^{ch} evening, great relief.

Of Recurrent Fevers

Delirium, Anxiety abt. of Praecordia &c; abt. 10 next Morn'g if Pat^t is conv^{ly} ali^d & the Delirium goes off. — But as there is a difference in Remittent Fevers, some have greater & others less remissions, so if there are gradations from a continued to a perfect Intermittent.

Types

Intermittent Fevers have a very singular Regularity belong^g to y^m, they are most apt to recur at 1/2 and of 48 Hours for y^e begin^g of y^e former Period: such are call'd Tertians next to this y^e are most apt to recur at 24 Hours w^{ch} are call'd Quotidians;

or at 72 Hours w^{ch} they are call'd Quartans; but there are Instances of y^e recurring at all other Intervals. — These Terms are not strictly adher'd to, for Fevers w^{ch} recur at 48 Hours have been call'd Tertians, & those at 72 Hours Quartans; but those w^{ch} thus take place

Converted to each other

before y^e usual season of Accession are call'd Participat^g Tertians or Quartans. Quotidians are frequently converted into Tertians, & Tertians into Quotidians; but

we very seldom find y^e Quartans are converted into Tertians, or Tertians into Quotidians, but this is to be understood wth this limitation, y^e Quartans have frequently 1st every other

Intermitt^t recedibly

day, & Tertians have sometimes a Fit every day; but the Fits on y^e intermediate days are comparatively slight & ~~is~~ have not a perfect Crisis but some of y^e symptoms continue till

y^e more violent Fit comes on; then we call Double Tertians & Double Quotidians — It

sometimes happens also in Quotidians y^e there are two slight Fits on y^e intermediate days & at length a violent Fit takes place on y^e third day, this is call'd a Triple Quotidian.

The symptoms indicat^g gr^t strength often happen in Quotidians; y^e symptoms of y^e 1st stage are violent in Tertians; & those indicat^g weakness, are frequently found in Quotidians — But symptoms of strength & weakness occur sometimes in all y^e Types.

Causes of Recurrent

Having given you y^e History of Recurrent or Intermittent Fevers, we must now examine into y^e Causes w^{ch} induce y^m thus to recur. — In y^e first place, if any symptoms of the Fever are left after y^e first Period is gone off, then a weak & slight cause will produce another Fit. If in Continued Fevers a Crisis takes place, & there are still some symptoms of y^e Fever left, then that Pat^t is liable to relapse, but if they are compleatly carried off y^e Patient is not so liable thereto. — Again, if a Disease is once produced, then a slight cause will reproduce it; this depends on y^e structure of y^e Body as we have already shewn.

Of Recurrent Fevers

But there is another cause w^{ch} acts powerfully to reproduce a Fever, w^{ch} is if even morning w^{ch} all Persons are liable to. — In an healthy Man, low^d if even^g there is an ind^t contraction of small vessels, consid^{le} weight abt. of the cordia, & sometimes quiesce of the pulse prevail^g but towards morning there is more a relaxⁿ of a small^r takes place — so if any Person has some symptoms of a Fever even^g tho^{ugh} they may often not be perceiv^d — We are at a loss how to act for this Fact — If a Fever continues till if 2^d even^g w^{ch} com^g to a Crisis then this nat^l cause is suff^t to produce a fresh exacerbation — This exacerbation does not take place precisely at if same Hour in all, but it comes on at diff^t Hours from fore in if Afternoon till 12 at night — I will by no means do, to act for this Increase of the pulse &c. by ascrib^g it to if Exercise of if Day, because it takes place with regard to those who use no exercise — But we may justly suppose, if if same cause w^{ch} produces symptoms of a Fever every day will also procure if recurrence of an Intermittent — We are totally ignorant also, why Fevers recur at if end of 24 or 48 Hours. — To suppose if it is due to some particular matter in if Intestines w^{ch} gets at such Intervals in suff^t quantity to if Blood sup^{pl} to reproduce a Fever, is mak^g a suppositⁿ if has no foundatⁿ on Fact — There is no very satisfactory

All Periods of Fevers w^{ch} terminate totally wth respect to if first symptoms will not recur w^{th^t if applicatⁿ of some fresh cause — I have never known an Instance where a Fit has thus return^d, where I could not evidently trace if applicatⁿ of a fresh cause. And, I believe, if an Ephemera simplex has frequently so terminated by avoid^g if cause of Fever: And soon where there are some symptoms remain^g if only one Period has taken place it is not reproduced w^{th^t if applicatⁿ of some fresh cause. All Fevers if do not recur in if Evening are induced to do so, if applicatⁿ of if fresh cause if prevail^g if they are made to recur at any particular time they are apt to recur at if time if any other, or they fall into if type if is next to if time — Thus, if a Person has a Fit w^{ch} comes on at 12 o'clock, if it comes not again at if same Hour it will recur at if end of 24 Hours, or else it will fall into a Quotidian — So, if a 2^d cause is applic^d at if diff^t time for if in actⁿ of Fever w^{ch} to recur, it will return at if time w^{ch} if cause is applic^d.}}

The 1st. even^g
Person

where a complete crisis is there is no return with a fresh cause

of recurring Fevers

Of Anticipation
of Recurrences.

It frequently happens if Quotidians will anticipate; & after they have anticipated for some time, they go back to their original Type & recur at if times they had before taken place. — But if a Fever is made to recur several times at if same season either by anticipation or if application of a fresh cause; if it does not recede it is apt to run off at if time thro the strength of Habit; this is particularly if can wth *Ephemeræ*.

The Fortian, probably
of true Type, often
only, Varieties

The frequency of *Billian* Fevers & if violence of if symptoms w^d lead into imagin if this is if true Type of Fevers, they are if most frequent & most violent tho' not always if most dangerous; & one w^d apprehend if Quotidians & Quartans are only a variety for if Type. — We find if Quotidians are usually attended wth great symptoms of strength & therefore seem to be a variety for if Fortian or act. off if strength of if Part: — and as in Quartans symptoms of weakness prevail, w^d shew if they are of if Type thro' if weakness of if Part: — Indeed some if are call'd Quotidians wth attended with symptoms of strength, but wth there are properly examin'd they will be found to be truly Double Tertian — Sometimes Quartans are attended wth marks of an inflamy Diathesis, but this is a case if very seldom occurs.

There are other causes w^d render those Periods irregular; for Instance, wth a Person is greatly weaken'd by a Fever & render very irritable, if Fever soon begins to anticipate; but in if case if Anticipation is not regular, for if a Fever for example anticipates two hours, the next anticipation may be made to if being wth may be a much longer Interval if of former, & wth it approaches to if long Period it will cause it to anticipate to a greater degree if at any other time. — 100 Persons become very irritable, then Tertians begin to double & Quartans to become Triple.

But we are far for being Masters of if causes of if Variation in Fevers. We now come to consider if Progress of Continued Fevers.

Of Continued Fevers
— consist of Periods

Continued Fevers also consist of Periods tho' they are not attended wth such full relief for if symptoms of if first stage as Intermittents, if 2^d Period begin in if middle of if first. — Wth a Fever continues to if 2^d evening, there is always a fresh exacerbation comes on at if time. This sends it if of same cause w^d produces the natural Exacerbation does also produce this fresh Exacerbation in Fevers.

Of Continued Fevers

Continued Fevers gently break down into Intermittents, & most Intermittents begin in Continued Fevers. And even in Continued Fevers we don't find of same Exacerbations in same time of day, for in most we find something of Typhoid Type. In 1st week indeed, we find most of of Exacerbations equal, but afterwards they become stronger & stronger whereby of Pat^t becomes worse. — These Exacerbations are much slighter in Fevers if they are in Intermittents, if are seldom accompanied with a sense of cold, nor so if other symptoms of 1st stage rise to so great a height. — In 2nd middle of of Disease, or in of 2nd week, sooner or later, if Fever puts on of Typhoid Type, every other Exacerbation becomes most violent so of of Disease from a Quotidian Continued Fever is converted into a Typhoid. — The Ancients took notice of this, for they call'd Continued Fevers by of names of Typhoids & Quotidians. — At this time of Disease arrives to its greatest height, & Delirium comes on. — If of Disease continues to of 3rd week, of Pat^t becomes much weaker, & of of Disease puts on more of of Typhoid Type, still, however of Disease becomes irregular, & if it continues to of 4th week it becomes still more irregular, & at length if of Pat^t is not destroy'd by symptoms of anasarca, the Disease leaves him.

In the first week, of danger chiefly arises from of violence of of Disease, in of 2nd week from of too violent Action of of Vessels; & in of 3rd week from of Weakness of of Patient.

— The Typhoid Type is also put on sooner or later according to of strength of of Pat^t, for if he is considerably weakened by evacuation it frequently appears in first week, but if of Patient is considerably strong of Type may not appear till of 3rd week. — Thus of strength of of Pat^t renders of Fever a Quotidian for of first week, a Typhoid on of 2nd, & a Quotidian on of 3rd week. — We must further observe, if of more violent of Attack is at any Period, of greater probability there is of of Fever will then run thro' all its stages & come to a crisis. — In Intermittents we find of of Attack is more violent up in Continued Fevers, & in double Typhoids & Treble Quotidians, we find of of Attack is attended with a more perfect Crisis of of intermediate ones. — In such a violent attack it gently comes on in of evening, with cold, blindness, Delirium & so of of Pat^t is suppos'd dying, afterwards a more violent Fever comes on & ends in a crisis.

Quotidians in 1st week

Typhoids in 2nd

Exacerbations

— but a diff. arises according to of strength

Of Continued Fevers

Of Crisis
how caused.

The Physicians take notice of, if Crisis is preceded by stronger symptoms of a Disease, tis indeed of violence of a Disease it produces a Crisis, for a quantity of blood thrown upon a Plethora stimulate a Heart to greater contractions, whereby a blood being propelled with violence towards the Capillaries removes thereby their contraction. — How then a Crisis takes place, according to its perfect or imperfect.

so, if Disease will be less or more liable to recur. — If a Crisis moves perfect the Fever proves an Ephemera; if it is imperfect, it becomes an Intermittent.

Where a Crisis is perfect a application of a fresh Cause may bring it on again; but when it has left many of its symptoms of its first stage it is likely if its Disorder will return in its evening, or at its time of its next violent exacerbation.

Of Critical Days

In Continued Fevers left to grow, more violent exacerbations often happen on 4th, 5th, 7th, 9th, 11th, 13th, 15th, 17th, 21th days after on any other. — It is seldom if a Fever rises to such a height as to produce a perfect Crisis before 5th day, & after 5th these days in which it puts on its Tertian Type are most likely to produce such a Crisis — We are to count of time not from its first appearance of its symptoms, but from its beginning of its first Period. — For this time, if a Patient is not weakened, or if action of its body increased by use of Stimuli, if Tertian Type will come on at its 7th day, or if Quartan Type on its 14th. But by variety in its strength of its Patient it may take place on its 9th or 11th day. Hippocrates tho't, if Gods delighted in odd days & therefore endeavor to make all its Critical Days odd ones. — In some circumstances where its Irritability is great, & Stimulating Substances have been applied, there may be but little relaxation observed; but if its Disease is left alone without disturbing its Periods, we shall always observe those Exacerbations.

But if no Crisis happens, in 5th week if Fever gently become weakened become more irregular & at length entirely leave its Patient.

Prognostics

The Danger has been already observed to arise either from its symptoms of its 1st stage & 4th Salivum produced thereby; or if too great action of its Patient, or if too weak of its Patient, let us now consider each of these, & it is of great consequence to be well acquainted with these if we may know how to avoid them, for if this is done, a Disease will always cure itself.

Of Continued Fevers

Violent symptoms
of 1st stage

The first is indicated by if Dis^e: by preceded by long continued Languor, weariness & Weakness: its b^y attend^d with gr^t. Prostration of Strength, if Skin b^y rough, dry, unequal; Uters become perfectly dry; if Pulse b^y much contracted, quick & intermit^t: the Tongue & Mouth's b^y dry, if Tongue cover'd wth a dry, rough Fur, & if Thirst inextinguish^{able}; if Urine's b^y pale, perfectly transparent & in small quant^y: if Nails, Fingers & Feet, remaining cold & pale; if Nose sharp, Temples & Eyes hollow, Skin of forehead contracted; ears cold; & Face universally Pale or of a dusky colour: The Breath^e b^y short, quick, & laborious, if Pat^t. mov^g his nostrils; the Praecordia tense, swell^d & hard; the Anxiety & restlessness gr^t: the Pat^t's pick^g if Hairs off if Bed Clothes, & hunt^g Flies: the Imaginatⁿ hurried; if Sleep restless & unrefresh^g; if Thirst go^g off suddenly; Violent Delirium, or a total Insensibility & Coma com^{ing} appear^g.

All these symptoms shew if great inactⁿ of if nervous Fluid, & if strong contraction of if capillary vessels, whereby if Pat^t. is many times cut off, and sometimes at if first seizes before accession of if hot Fit, wth has been sometimes mistaken for an Epilepsy.

In if 2^d week these symptoms come on so strongly in continu'd Fevers of if Pat^t. is frequently destroy'd, but in this case of are gen^{ly} attend^d wth Delirium & Coma: whereby if Functⁿs of if Brain are so destroy'd if if hot Fit is prevented fr^m tak^g place, in consequence of wth if Pat^t. dies at if next Equilibrium.

strong action of
the vessels

The symptoms of if strength of if vessels have been already shewn in Inflamⁿ & consist in a hard, full, strong Pulse; a gr^t. Redness; a full & quick Respiration; a dry white Tongue; gr^t. pain in if Head & Joints; sweat^g abst. if Head & Breast, or all over if Body; red swell^d Eyes; Thirst, Delirium, Convulsions.

The derations in this 2^d stage are not so fully suppress'd as in if first; for tho' if Tongue is white & dry it is partly on acc^t of if Quantity of Air pass^g over it; if power of white appears if blood is in a more inflammatory state, as if however it is, if more the blood verges to putrefaction — the great quantity of if blood thrown by if action of if Arteries on diff^t. parts of if Body produce if other symptoms, of Pains, partial sweat, Thirst, Delirium &c.

Of Continued Fevers

Symptoms of
weakness.

The danger aris^g fr^m weakness of y^e Part^s is indicated by partial, or universal, or cold colligative sweat^s; Punging; Tears; great secretion of Urine; or any other partial secretion, if not not tak^g place at y^e same Time; Urine wth a mucous Flood or Sedim^t; Symptoms of putrid Blood, as a black Taint upon y^e Tongue, thick & black Urine, Petechia, putrid secretions, as putrid Tissues &c. A small, quick, trembling Pulse; the Patient lying seemingly stupid, wth much uneasiness, or on his back wth his Legs & Arms extended slapp^g out at y^e feet of y^e Bed; faint^g wth in great Posture, or upon any evacuation; Delirium; Subtutus Sordium; the Forces & Urine evacuated wth y^e knowledge of y^e Patient; y^e Pulse lost in y^e Arm.

Partial secretions

Partial secretions are always proof of great weakness; a weak Person if he was any considerable time falls into a violent sweat; so it happens in Fevers, if there shod chance to be a flow of Blood to any particular pt. of y^e body, there will be a greater secretⁿ made there. But one single secretion does never produce a Crisis; thus Pung^g for Instance does never cure a Fever unless y^e other secretions are also increas^d. — but we must observe also y^t there is one secretion w^{ch} takes place in consequence of y^e too gr^t strength of y^e Lungs, w^{ch} is sweat^g abt. y^e Head & Breast. — The Urine in this weak state is extremely various; sometimes y^e Kidneys are extremely contracted & y^e Urine is very Pale, but on a consid^{ble} flow of Blood towards y^e y^e are considerably relax^d & y^e Urine deposits a Dim^t. But this depositⁿ of a sedim^t altho^{ugh} accompany^d wth other secretions is no proof of a Crisis. — You have sometimes a floccy sedim^t in y^e Urine; w^{ch} is y^e Mucus of the Bladder, & shews great weakness in y^e Part^s. — Putrid Blood is another proof of

Various Urine

Putrid Blood

Weakness; for if a Person by any cause is greatly weaken^d, you will find y^e Blood is consid^{ly} urg^g to putrefaction, for it has a great quantity of Glee. — But sometimes y^e Blood is more putrid y^t can be supposed to be produced by mere weakness; for in Fevers produced by putrid Matter, tho^{ugh} y^e blood appears at first to be in a healthy state, y^t towards y^e end it appear to be more putrid y^t in any other kind of Fever. — It is a Question, whether this Putrefaction proceeds fr^m y^e cause y^t produced it, or fr^m y^e great Violence of y^e Fever; for Fever produced by cold if it runs high does generate putrid Blood;

Of continued Fevers

But Fevers produced by putrid vapours if symptoms are not violent are generally attended with great symptoms of Irritability & of Intoxication.

The Pulse indicates gr^d weakness as it does not sufficiently contract itself but goes off with a Trembling Motion, of Heart & Arteries not sufficiently contracted & quib. The Act. in great measure lies on his heart, as there is life force & energy lay in muscles in this part of any other.

The Post^{re} is up to sleep out at y^e feet of y^e Bed, for as y^e muscles of y^e Back are stronger yⁿ any other, in attempting to turn himself he chiefly exerts them, in consequence of w^{ch} he sinks lower & lower in Bed. — Again, we know y^e weak People are mostly most so, w^{hen} they are in an erect Posture y^e w^{hen} y^e lie down, because y^e blood w^{ch} y^e Person is in an erect Posture requires greater force to throw it into y^e Head, y^e w^{hen} lying down; besides w^{hen} a Person sits up there is a much greater degree of muscular exertion w^{ch} is this Post^{re} is y^e principal Cause of faint^{ness}. — As evacuations weaken, so it is not wonderful

4th. A Person laboring under great weakness, faints wth such an actual is made. Great weakness is always attended with symptoms of Irritability; if Heart is now-
tried to beat above 160 Strokes in a Minute, & in consequence of this frequent motion there is
but a small quantity thrown into of Arteries; the Brain therefore is not properly supplied with
Blood & a Delirium arises — this Delirium is extremely diff^r fr^m of two former kinds
arising fr^m of 2^d & 4th stage; tis not attended wth red vessels & eyes and throat as is of case
wth of: wth arises fr^m too strong an Action of of Excess; it is also distinguish'd fr^m of
of of first stage, because of is attended wth sunk & hollow eyes, & wth considerable
Exacerbations; But here, tho' there may be some transitions yet they are mostly more
irregular & to a less degree of wth of cold Fit is violent; its coming on wth of symptoms
of of first stage & continuing more irregular serves to distinguish it fr^m Delirium of the
first stage. — Other symptoms of great Irritability take place such as involuntary

Trumb. & Pulse

Family

Delirium from
Irritability

Contract^{ns} of 4th Musely

Of Continued Fevers

Symptoms & Stage 107. If symptoms of 1st stage with indicate of contraction of small vessels, come on wth great violence, if Fever generally goes soon thro' all its stages so y^t it becomes either an Ephe^{ra} simplex, or an Intermit^t; the reason of this we have already assign^d.

But w^{hen} those symptoms take place wth indicate a great Inaction of Nervous Fluid chiefly take place then of Disease is like to be of consid^{le} Continuance. This is obvious, because if Cause of a hot Fit is not apply^d in a suff^t degree, the whole Body act^g weakly is not so apt to be excited to throw of Blood wth proper violence on of Heart, & wth in consequence hereof is not stimulated to suff^t Contractions.

108. If Tertian Type soon appears, if Fever is gently chang^d to an Intermit^t, because then of Crisis is likely to be of more perfect — And we have observ^d, y^t if more perfect of Crisis, of less danger there is of a Relapse. — Continued Fevers whose Type is chang^d by Crises are less apt to be cur^d by Crisis — In this Country where Evacuators are plentifully us^d Crises are much more imperfect, but in Germany, where they are more sparing in this respect Crises are much more perfect. 'tis difficult to say wth this is owing to, but we know tis Fact.

Fevers wth in y^e begin^g are attended wth circumstances of great strength & generally continue long, but those which are not thus attended are ~~less~~ of ^{shorter} Continuance.

Nervous Fevers y^t have but few symptoms of y^e first Stage do generally continue 4 or 5 weeks whereas those which are attend^d wth symptoms of strength are gently terminat^d at y^e end of y^e 2^d or y^e begin^g of y^e 3^d week.

If a Fever is disturb^d & render^d irregular as, by y^e Administratⁿ of ^{may be of ease} spices, a Crisis is now to be expect^d; it generally terminates in symptoms of great weakness.

Fevers y^t are continu^d & have y^e symptoms of y^e first stage violent, as y^e Plague & Malignant Fevers. Continued Fevers, in wth y^e symptoms of y^e first stage are in y^e begin^g slight, if attend^d wth gr^t symptoms of strength, are Inflammatory Fevers, if otherwise, low Nervous Fevers.

Diff^t Authors have enumerat^d some 100^d of Fevers but they are only varieties of y^e same Disease, accord^g as y^t are attend^d wth great^r or less symptoms of y^e first stage, & accord^g as y^e Pat^t has more or less strength, & accord^g to y^e Cause y^t arise in y^e diff^t Periods, & length of those Periods, & y^e relief y^e Pat^t finds under y^e — You never have two Fevers alike in y^e whole Process.

— The Inflammatory, Malignant & Nervous Fevers only differ wth regard to y^e degree of y^e Fever & y^e strength of y^e Patient.

Of Continued Fevers

Indications of Cure in Fevers

In treat^g of Fevers, we shall show you their diff^t Extremes, & w^h Circumstances will happen for & too gr^t violence of y^e Fever, or too gr^t strength of y^e Patient, or y^e great weakness & the method of avoid^g these Inconveniences, & leave you to apply these things to y^e diff^t gradations y^e come between those Extremes.

As a Fever is a Disease y^e will cure itself, so y^e business of y^e Physician is to guard against y^e dangers y^e may arise for y^e too violent symptoms of y^e first Stage, to moderate the too strong action of y^e Plethors, & ^{support weak} weakness y^e takes place in y^e later end of y^e Fever; as it is by these y^e y^e Patient is destroy^d. — He must also guard against y^e exposure of y^e Patient to fresh causes of Fever, & w^h ever may disturb y^e Periods & render y^m irregular, as this will prevent a Crisis from tak^g place.

Indication
of Cure —

Indications, all applications increas^g y^e Disease, render^g y^e Hot Fit irregular, or disturb^g y^e Natural Periods, are to be avoided.

Food must be
proper —

The Food is not to be of difficult solution or Fermentatⁿ; flatulent; producing an adhesive solution; disagreeable to y^e Stomach; nor in too great Quantity. We have shewn y^e Substances in y^e Primalice whether y^e are Food difficult of digestⁿ or Feces are capable of produc^g Fever, or at least of reproduc^g a Fever w^h once it has taken place; and these Substances taken dur^g y^e Fever frequently increase it, & renders y^e Hot Fit irregular. — Pat^{ts} commonly in Fevers have little or no Appetite, And w^h y^e do eat shod be of such a nature as to lie but for a short time in y^e Stomach. Now y^e Food is not cast out of y^e Stomach till it is digest^d, and any food difficult of solution will remain there a long time. Foods dissolve much sooner in consequence of y^e Fermentatⁿ y^e takes place there; as is evident by a piece of Membrane begⁿ much sooner dissolv^d in a Fluid where Fermentatⁿ is begun y^e in any other.

But Care shod be taken y^e such Food is not us^d, which in Fermentatⁿ produces a great quant^y of Air as y^e Stomach will be distend^d thereby, w^h will bring on an increas^d action of y^e vessels thro^g y^e whole system. The Leguminae are a class of this kind. — The Food also shod not produce a viscid solution, w^h is on y^e aut^h offensive to y^e Stomach, & are apt to bring on y^e first stage of Fever.

Of continued Fevers

Of this kind are a number of Fishes, particularly Shell Fish. — Foods also of a kind wth Essential Oils become disagreeable to y^e Stomach. such as fat Foods & those of a strong Flavor, such as Pork & Salmon; these have a tendency to bring on y^e first stage of Fever & to increase y^e 2^d. — A large quantity will have y^e same effect.

Proper substances
to be used for food

Proper substances for Food are, (1) Decoction of Rice, Barley, Oats &c.
(2) Malted Barley, Oats, Rice boiled; or fermented into Bread, afterwards toasted.
(3) Broths of Pullets, lean Mutton, Beef. (4) Pullets abt 9 months old roasted or boiled.
(5) Whiting, Flounders, Soles, Dace, Roach; these Fishes however are seldom used.

Foods of y^e easiest digestⁿ afford y^e least nourishment; these are ranked above accord^g to their degree of nourishment. — Solutions of y^e Farinacea of y^e don't afford too viscid a solution are easiest of digestion; & as they contain but a small quantity of Essential Oil of y^e are not disagreeable to y^e Stomach. Being already mix'd wth water they do not produce much air in fermentation. — But as y^e are mix'd wth water of food we but little Chyle, and these are carried into y^e Blood wth but little change. The chief use of y^e is to carry out of y^e circulation y^e superfluous part of y^e Neutral Salts & Glue. — The 2^d Class, wth consist of y^e same subst^s found into Bread & baked is somewhat more nourishing — It is necessary these subst^s should be skilled wth given whole as y^e Stomachs are very insoluble in y^e Stomach & contain an astring^t quality. It is necessary also y^e they should be fermented, boiled or baked as they thereby give a much less viscid solution — These subst^s may be used at y^e begin^g & thro^g y^e whole of Fevers provided y^e are not carried to too gr^t a height. — Animal Food affords much greater nourishment y^e vegetables, so y^e we think it advisable to give more meaty subst^s we administer these — we usually give y^e divided in water together wth Bread or some other digestible subst^s to prevent their passing too readily out of y^e Stomach. — Solutions of Animal Subst^s should not be such as are Adhesive, & made wth Pullets, lean Mutton &c; we use young Fowls & not Chickens because y^e are not of so gelatinous a subst^s as y^e later, & on y^e same art we prefer Mutton & Beef to Lamb & Veal, these we give at y^e end of Fevers when y^e Patient

Of Continued Fevers.

requires to be strengthened; they may be also given in Intermit^t — The other kinds of Food are confin'd to Intermit^t & can be us'd in no other. — The flesh of Birds is in general more easy of digestion y^e y^e of Beasts, & y^e flesh w^h is white is more agreeable to y^e Stomach y^e any other. — In Intermit^t when y^e Crises are pretty perfect, & w^h we expect a long continuance of y^e y^e, we may give food of greater nourishment: state, such as debiting Spleen, &c. — These Foods are to be given accord^g to y^e degree of y^e Fever.

Prima via
must be cleans'd

"2. The Prima via is to be cleans'd from any offend^g matter, by gentle Emetics & Laxatives, or Clysters, accord^g to y^e strength of y^e Patient".

Besides y^e Food there are other subst^s w^h cause an increase of Fever; such as too great a quantity of Mucus in y^e Stomach, or a quantity of Feces accumulated in y^e Intestines. When a large quantity of Mucus is produced symptoms of Fever are put on, such as Headachs, Restlessness &c. — when this is y^e case, 'tis necessary it sh^d be evacuated by a vomit. — In Fevers all y^e secretions are greatly diminish'd, in consequence of which Feces are collect'd in y^e Intestines, such as part of y^e Bile, & y^e indigestible parts of y^e Food; these frequently putrify & increase y^e Fever; these are to be evacuated by Laxatives or Clysters. — In gen^l Laxatives are preferable to Clysters because by those you evacuate y^e whole intestinal Canal, whereas Clysters only clear y^e larger Intestines: but in many cases we are afraid of giving Clysters, lest we sh^d cause too many Stools, w^h w^d greatly reduce y^e strength of y^e Patient.

We use Emetics also for other purposes besides clear^g y^e Stomach, those uses we shall afterwards explain. — The Laxatives we use are such as have but little effect on y^e System, for y^e stronger Purges w^d greatly disturb y^e Fever; we therefore give, "Sal Glauberi Bonus, Tartar. Trisulphat^{um}, Polycrestum Repellent^{um}, Sulphur, Rad. Sili^c, Manna, Cassia, Tartar, Fructus Tamarindorum". — In strong Patients when we want to diminish y^e strength of y^e Pat^t we give Nuttall's salts to procure him 2 or 3 Stools in 24 Hours, but where we don't think it convenient to weaken him Nuttall's is by far y^e safest; we give it in small doses such as 12 or 13 grains to a dose, & in such a quantity it has but very little effect upon y^e System. — At y^e begin^g of Fevers we give Nuttall's Salts, or y^e Acids, such as Tartaric, but in y^e later end, Rhubarb, as suited to y^e weak state.

Excess Laxatives

Of Continued Fevers

Rough Glysters

Glysters we make of of same kind of gentle laxative subst^s such as. Decoctum commune pro Clymate, Sal Commune, Sal Glaberi, Oleum Lini, Saccharum rubrum, Mucilaginem Lentium.

Great Heat or Cold to be avoided

3. Great external Heat & Cold are to be avoided, as are likewise sudden changes from the one to the other, & Air unfit for Respiration.

Too great Heat does mischief by stimulating & skin increases & action of y^e vessels whereby y^e hot Part is prevented fr^o regular; it also relaxes y^e external vessels while the internal are contracted, so y^t if Part is weakened by sweat & with^o any relief; it frequently in Inflammatory Fevers increases y^e action of y^e vessels so as to destroy y^e Patient. — Too great Cold is also very hurtfull by increas^g y^e contraction of y^e vessels.

But y^e heat of y^e Chamber is not to be suddenly cooled; for Heat is relatively a relative thing, to a Person who has remained some time in 90 Degrees of Heat, 80 deg^s will prove extremely cold. — Besides this, Air unfit for Respiration is extremely prejudicial; for an act. of y^e Fever y^e Air can't pass readily thro' y^e Lungs, if therefore Bad Air is thrown in, we shall greatly increase y^e uneasiness. the Air of y^e Room sh^d frequently be chang'd, & there sh^d not be too many Attendants. Now all these Circumstances cannot be avoided in a small Chamber; if larger y^e Chamber is y^e more readily we can increase or diminish y^e heat, & avoid Currents of Air. Heat is to be generated by Fuel burning in an open Fire Place; Cold by sprinkling y^e Floor with Infusions or distill^d waters of some of y^e Aromatic Herbs such as Thymus, Rosmarinus, Lavendula, Rosarum Flores.

Sleep procured

by diversif^y y^e Aliment

4 Sleep must be procured. — Want of sleep is of great disadvantage. w^o a Part can't sleep, Deliriums are greatly increas'd, & even this is sufficient to produce a Delirium. In order to obtain Sleep we must guard against every thg^g y^e prevents y^e Part^s fr^o Sleep; the Part^s fr^o his uneasiness & wish^g to sleep is many times prevented fr^o it, & even therefore may take off his Attention such as y^e falling of water, & so y^e produces Sleep.

Antispasmodics

Antispasmodics & sedatives as decrease y^e symptoms of y^e first Stage are of use, as: Oleum Dulce, Oleum Ethericum in Spiritu vini soluta & Aquae Commixta; But these can't be employ'd often in y^e 2^d Stage on Acc^t of their Stimulus, like all other Antispasmodics they are very uncertain.

Of Continued Fevers

Opium will frequently produce sleep at any time of *if* Disease; but *if* sleep for weeks *if* Patient wakes without refreshment is worse than none at all, & in *if* State of *if* Fever *Opium* has frequently those effects — In *if* Inflammatory Fever, by increasing *if* Action of *if* Vessels, it increases *if* Delirium, but when *if* Irritability is increased towards *if* End of *if* Fever, *Opium* is of service. — The Extract of *if* Poppy is better *if* *if* *Opium* itself, as it does not contain so much of *if* resinous parts as *if* other. We ought never to venture on large Doses at first, small Doses generally are sufficient. — There are some Cases in which large Doses ought to be used, but they will not do here. — *if* small Doses don't agree, larger Doses will do *if* more mischief —

5 Other causes of Fever such as Putrid Air, Fear, Grief, Anxiety are to be recorded.

2^d Indication: II Indication. Accidents arising from too strong Action of *if* Vessels ought to be avoided;

By Bleed^g according to *if* strength of *if* Patient, & *if* violence of *if* symptoms of *if* 1st Stage.

if *if* Vessels in *if* beginning of *if* Disease act too strongly tis necessary to weaken *if* strength; but we must observe *if* we can never cure this Disease by bleed^g, tho' we may in Inflammatory Diathesis — bleed^g therefore is only to be used to avoid *if* danger arising from *if* too strong Action of *if* Vessels. We should also remember *if* *if* Disease does also weaken *if* Patient, & there is a time coming, in which *if* danger will be of *if* Patient's being destroyed by weakness. And further, *if* *if* Disease is rendered more irregular by bleed^g. — We should therefore previous to this evacuation attend to *if* violence of *if* symptoms of *if* first stage — *if* there arises a considerable symptoms of an Inflammatory

Diathesis, & but a slight Fever; *if* *if* Pulse should be full & hard, & *if* Respiration difficult; *if* the skin should be smooth, & no great Anxiety about *if* Praecordia; *if* there should be *if* least stupor or danger of a Delirium, then we may take off a considerable quantity of Blood & weaken *if* Patient freely, because *if* danger is from *if* Inflammⁿ, *if* Fever will soon terminate. — But *if* on *if* other hand, we should have hardness of *if* Pulse and at *if* same time considerable Anxiety about *if* Praecordia, together with great contraction of *if* Capillaries; we are not to be too free in bleed^g, because *if* contraction of *if* Capillaries will in some measure tend to relieve those symptoms, & *if* bleed^g will greatly reduce *if* Patient.

Of Continued Fevers

It is amazing how some Authors have been misled in this respect: They tell us, if Patient bore one bleed very well, but if, if 2^d bleed greatly reduced y^e, we^{re} evidently prov^{ing} if, if first bleed was improper. — When there is danger of a Delirium we are to bleed, whether if symptoms of if first stage are violent or not, because if greatest danger is from if Delirium, w^h may immediately destroy if Patient. Evacuati^{ons} are ther^{ef} to be perform^d accord^g to if violence of if symptoms of if first stage & if strength of if Patient; If if Pulse is not hard & strong, we sh^od never use Evacuati^{ons} we are only to avoid particular dangers, & Evacuati^{ons} are to be perform^d in proportion to those dangers. — In Fevers, bleed^g is if most suitable evacuati^{on}; Gentle Laxatives may be also us^d (such as are directed under Indicat. I. 2.) but Purgatives will increase if Fever, for Purg^{ing} will bring on a fresh attack after an Interm^{ission} is obtain^d. Purg^{es} likewise considerably disturb if course of if Hot Fit, so if, if prevent if Patient fr^{om} enjoy^{ing} if relief he otherwise w^old have done; for by determin^g if Blood toward if Intestines, if prevent its being dispos^d thro^u if whole Body.

By Laxatives

Food of little nourishment 2. The Food is to be such as affords little nourishment (Indicat. I. 3. (1).)

w^h there are any symptoms of strength if Food sh^old be such as affords but little nourishment; simple Decoctions of farinaceous seeds will be sufficient; because a quantity of Food always increases if action of if Visc^{era}, & causes a large quantity of blood to be thrown upon if Brain. We don't want if Visc^{era} to be now fill^d; and as if Food is never properly digest^d, it is extremely liable to become either Acrid or Acrileous.

By Laxatives

3. Laxatives may be given internally, such as, *Colicum vitriolicum*, *Muriaticum*, *Limonum*, *Tamarindorum*, *Kerberis*, *Mororum*.

Laxatives may be sometimes given to advantage, but we can't greatly trust to y^e; if may diminish if action of if Visc^{era}, but are must depend on Evacuati^{ons}.

These are if means of weaken^g if Patient — We sh^old only add on the Head, if bleed^g is to be perform^d here as in if Inflammatory Diathesis; a large quantity sh^old be taken away at a time so as to avoid if danger, & if necessary sh^old be repeated a 2^d & 3^d time, & with if applicati^{on} of a fresh cause 'tis seldom we need more y^e two or three bleed^gs.

Of Continued Fevers

101

Indication

III Indication. The strength is to be supported, w^{ch} of symptoms of weakness come on.

Stimulants

Some have maintain'd if weakness may be taken off by Stimuli, but we do not find if this is of use. — The danger in of later end of Fevers does not only arise from Weakness, but also from Irritability, & Stimulants in this case instead of raising of Vessels to act stronger, causes you to act quicker, produce subultus Tendonum, & Contract^{ns} of of Muscles: all Stimulants have more or less this Effect.

There is also another ill consequence arising from use of Stimulants, w^{ch} is, if every Stimulus weakens after its action is over; by causing of power of of Muscles to be exerted it weakens y^m; just in of same manner as a Person y^f is tired by exercise, is weakened thereby — Thus Mercury apply'd for a considerable time to of system greatly weakens, tho' it has a natural tendency to stimulate of Vessels — in of same manner, Wine if drunk to a large quantity weakens considerably. — For these reasons, those

Stimuli w^{ch} have their action continu'd for a length of time, & at least tolerably are to be chosen. — Of all of Stimulating Sub^{ts} we employ for supporting of strength Wine ought to have of preference; it does increase of Irritability but little, tho' it some times has this effect, tho' usually by of moderate use thereof of Pulse becomes slower. — We give of preference to strong Wines as of most proper, for weak Wines

are apt to be flatulent in weak Habits; we would also draw of sweet Wines on acct of of Sugar therein contain'd, for of Sugar affords nourishment & of of kind w^{ch} produces of least ill effects on of Stomach; tho' we may easily mix Sugar with Wine. — The Wines we use are Sack, Madeira, Mountain, Port, Claret &c.

Antispasmodic Stimuli are to be prefer'd next to Wine, such as Musk, Camphire, Castor & Volatile Alkali; they however increase of Irritability more of Wine. We sh^d carefully examine of Pulse bef^{re} we give y^m & if of disorder it quicken we sh^d desist. — Their Stimuli are much quicker & go sooner off of Wine, & therefore are not so useful. — The Spices, & soon of Aromatic Roots are of y^m, & barely

useful; there is hardly a case in 20 in w^{ch} of do not increase of Irritability

Of Continued Fevers

& thereby decrease of strength; they increase of quickness of $\dot{y}$ Pulse also, & bring on Delirium, subcillus Tordium, whereby $\dot{y}$ Patient is frequently destroyed. — It is much of present Practice to administer $\dot{y}$, but $\dot{y}$ ill effects are very obvious. These effects may be in some measure avoided by giving Acids with $\dot{y}$ wth in some measure takes off the Irritability. The Aromatic Roots may be thus administered wth Acids to some Advantage; but if $\dot{y}$ increase of quickness of $\dot{y}$ Pulse, off do mischief. Blisters also, as $\dot{y}$ increase of Irritability are not so usefull.

IV Indicatⁿ

IV Indication. Irritability towards $\dot{y}$ End, is to be taken off.

By Acids & Aromatic Roots

It sometimes so happens, $\dot{y}$ we cannot keep up $\dot{y}$ Strength of $\dot{y}$ Patient, & he is destroy^d by weakness; but it is chiefly of Irritability $\dot{y}$ parts of Patient. — This Irritability we attempt to remove by $\dot{y}$ Applicatⁿ of Acids; but they are not to be administered by $\dot{y}$ $\dot{y}$. But wth some of $\dot{y}$ Aromatic Roots, such as Sakeroot &c. —

By $\dot{y}$ Bark.

Towards $\dot{y}$ end of symptoms decrease & every Period becomes less & less; wth there is any tolerable Intermision, $\dot{y}$ Bark may be given to take off of Irritability. — But if there happens to be a considerable Stupor left in consequence of a period of Delirium, $\dot{y}$ it is not to be given for it greatly increases of Stupor. — In this case $\dot{y}$ Patient is not in such danger from $\dot{y}$ Irritability: there are but few such die. — Stimulants in this case are more proper; to such we may give Wine & Muck so as to keep up $\dot{y}$ Strength till $\dot{y}$ Stupor goes off. — Where there is no Stupor, we may give $\dot{y}$ Bark; we sh^d begin wth small Doses wth will agree better wth $\dot{y}$ Patient $\dot{y}$ longer ones, & they will commonly render $\dot{y}$ Pulse slower, & $\dot{y}$ Fets more regular. — We are not to defer giving $\dot{y}$ Bark on acct^t of $\dot{y}$ quickness of $\dot{y}$ Pulse, for $\dot{y}$ chiefly arises from $\dot{y}$ Irritability. I have given it wth $\dot{y}$ Pulse was at 140 or 150 — But we are to have regard to $\dot{y}$ Symptoms of $\dot{y}$ Fever; for if $\dot{y}$ Skin is dry, & there is an Anxiety abt^t of Respiration wth other symptoms of $\dot{y}$ first stage, & but slight Remissions, $\dot{y}$ $\dot{y}$ Bark greatly increases those symptoms. — We are also to attend to $\dot{y}$ Effects of $\dot{y}$ Bark; if we find it does good, we are to continue its use, but if it increases $\dot{y}$ Fever we are by all means to omit it. — These are $\dot{y}$ means of conduct of Fever so as to avoid any danger $\dot{y}$ might arise from too great Strength or weakness.

Of continued Fevers

V. Indication

V. Indication: "The symptoms of 1st stage are to be immediately taken off or diminished."

By Med. produg-
equable Circulation

By giving internally Med^t to relax y^e small vessels thro'out y^e system by y^e action on y^e Stomach, such as Nitram Commune, Ammoniacum Commune, all y^e other Neutral Salts, Radix Ipecacuanha, Rad. Senecio, Preparations of Putimony, Aqua frigida."

This is a class of Med^t we employ to take off y^e Fever by relax^g y^e capillary vessels & by y^e action on y^e Stomach to counteract y^e Fever. — If we throw any of these Med^t into y^e Stomach of a healthy Person, immediately y^e Capillaries become relax'd; you find an universal glow on y^e Skin attended with an increase of moisture & with^t y^e uneasiness wh^{ch} is caus'd by cordial med^t. — And very often y^e Capillaries of y^e Intestines are also relax'd so y^e stool is procured, & also a flow of Saliva to y^e mouth. — These Med^t have been always employ'd; Cold water was y^e first y^e was us'd for this purpose, (wh^{ch} as we understand fr^m Galenism) was given in y^e 1st 2nd in such quantities as to cause a nausea; this produc'd a sweat.

Cold water

Neutral Salts

Neutral Salts on y^e Introduction of Chemistry, were also made use of; but y^e are not sufficiently powerful to take off a Fever, we only use y^e to take off y^e symptoms of y^e first stage, in Intermitt^t. — Those of y^e y^e are least soluble in water such as Diluvial Tartar are most useful, as y^e continue longest in y^e Stomach

Ipecacuanha

Ipecacuanha, is too apt to create a Nausea to be of great service. — Kettle make it not does not continue a suff^t time in y^e Stomach to be of great use. — Preparat^{ns} of Putimony are us'd for this purpose; but Emetic Tartar is y^e only useful one among y^e, because all other Preparat^{ns} depend with regard to y^e operation on y^e quantity of Acid contain'd in y^e Stomach, & no one w^d dare to give a med^t y^e is uncertain in its operation w^{ch} he has one he can depend on — there have been many instances in wh^{ch} this Med^t has cur'd Fevers, but it is certain it will fail in 5 Cases out of 6. — It is therefore necessary to require w^t time in y^e Disease it may be properly administer'd, & w^t Mischief may ensue w^{ch} it fails of success.

Prep^{ns} of Putimony
Emetic Tartar
best of y^e

Of continued Fevers

- w^h given

If it is given so as to act along with the hot Fit of the Fever it is rendered more capable of acting Effectually y^t at any other time. — It ought also to be given at y^e greatest Exacerbation; and in Quotidians in y^e Evening of any Day. — In a Fever of any of Sclerian Type it cannot be so properly administered on y^e intermediate Days as on y^e day w^h y^e Exacerbation takes place. — In Inflammatory Fevers when y^e Symptoms of y^e first Stage are not violent & when y^e Action of y^e vessels is given it can't be exhibited to so much Advantage, for it is apt to excite violent Lavate & to increase y^e Inflammation. — In violent Fevers, it ^{ought to be} given in considerable Doses at y^e time of y^e Exacerbation or else it will not be suff^t to counteract y^e Fever; & y^t it frequently carries off y^e Disease or at least greatly lessens it, so y^t it is broken down to an Intermission. — Where y^e Disease is not violent, & y^e Inflammation not great, these small Doses are sufficient to cure y^e Disease.

This Med^c is then of great use in y^e beginning of all Fevers, Inflammatory ones excepted, & soon in these, small Doses may be useful: in y^e middle of Fevers it may be given to great advantage at y^e greatest Exacerbation, but if given on y^e intermediate Days it will tend to render y^e Fever irregular. — but at y^e end of Fevers it is not useful, as y^e danger is not from y^e Fever but from y^e Irritability: many have been destroyed by its being given at this time, y^e weakness & Irritability b^y greatly increased. — If large Doses give relief, then smaller Doses may be administered. —

These Medicines in Intermission Fevers are given chiefly to take off y^e Symptoms of Fever & during y^e Intermission, they have also been given at first so as to vomit, & then in smaller Doses afterwards. — They are all Purges w^h given in a large Dose. — But Med^c lose their virtues by giving too large a Dose, & y^e converted to simple stimulants. — If these Med^c are given in large Doses, & especially if y^e thrown in large quantities of water they lose y^e effects. — It is necessary however w^h we want to make a purge, to give y^t so as to excite a Nausea, & y^e Pat^t may be relieved in some measure wth Infusion of Chamomile, but y^e vomiting must not be encouraged, if Pat^t is to be kept in Bed.

Of Continued Fevers

and if vomitg stop'd by if Applcatⁿ of an Opiate, but we have great effects for
 y^e where if Patient is not made at all sick.

2 By produc^g
 External Inflamⁿ.

2 We take off if Fever, by external Applications producing Inflamⁿ, such as
 Cantharides, Semina Sinapi.

We have observ'd y^t an Inflamⁿ arising in any pt. of y^e Body does frequently take off
 the Fever; & therefore we frequently imitate Nature by rais^g an Inflamⁿ.

10th Bleets are
 unsafe.

We generally use Cantharides, as y^e Inflamⁿ of Skin only & act wth great certainty.
 Now there are several things to be observ'd wth regard to if produc^g of this Inflamⁿ.

At y^e begin^g of if Disease w^h there is a strong action of if Arteries, Inflamⁿ can't
 be produc'd to any great Advantage; for such applicat^{ns} are liable to increase if
 action of if Arteries & thereby to throw gr^t quantities of Blood on y^e Brain whereby
 if Patient will be endanger'd. They sometimes indeed cease at y^e begin^g of
 a Fever when there is not a strong action of if Vessels, but y^e are not y^e best
 means, because if if Patient is weak, if they shod not take off if Fever, they will
 leave him weaker & more intractable. — The principal use of these subst^s is
 in y^e middle of a Fever, w^h if symptoms of if first stage arise to y^e greatest
 degree, particularly w^h Delirium takes place: y^e sometimes then diminish
 if Fever & take off if Delirium — this Delirium we are speak^g of is y^e w^h arises
 in if cold Fit of Fever, & is extremely diff^{cl} for if Inflamⁿ to raise, as may be easily
 discover'd by if Eyes & other symptoms. — In this case we w^od apply y^e at
 first so as to produce considerable effects, & for y^e purpose as near y^e Head as possible;
 for these Inflam^{ns} act most powerfully on if parts y^t are near y^e. — Bleets shod be
 apply'd to if Head, or at least to if Neck, & those not of if smallest size.
 Very frequently symptoms will not suffer us to chuse y^e time of Applicatⁿ, but it is
 best to apply y^e in if dec^g so as to act wth if hot fit of Fever. — If one Bleet
 shod be of service, & if symptoms begin again to increase, a 2^d may be apply'd; but
 if if first make of Patient worse, y^e a 2^d can do no good; but sometimes a 2^d
 must be try'd as we have no other Method left.

where apply'd.

Of Continued Fevers

But if you continue Blister after Blister you frequently bring on such a degree of Irritability y^t of Patient may be destroy'd. — If you get rid of y^e pres^t danger of Pat^t may get thro' of remainder of y^e Disorder & may ease Blisters will be of no service

Not proper in y^e
end of y^e Dis^e

Blisters have been apply'd at y^e end of y^e Disease to take off y^e Belivium produce'd by y^e Irritability, but in gen^l they greatly increase it. — Nature are they at all proper subst^s to keep up y^e strength, for y^e are more apt to increase y^e quickness of y^e Pulse y^e soon y^e spires. — If y^e do good, tis by taking off y^e Discrete, but there is but little to be expected for y^e w^{ch} of Irritability is great. — There is perhaps nothing y^e requires more Judgm^t y^e of Application of Blisters, for none do more good w^{ch} properly apply'd, & none more mischief by an injudicious Application.

By increase of
Heat & Fire

There is another method of taking off y^e Fever, w^{ch} is by increase of Heat & Fire w^{ch} of Life y^e do not act with sufficient strength. — This has been practiced by some Physicians and as totally condemn'd by others — but this method is not altogether without its use.

Of some use in
Various Fevers

In low nervous Fevers, where y^e symptoms of Fever & strength are not great, y^e subsequent Acts may be prevented by y^e Administration of Diaphoretics such as Camphire, or Saffron & such like Stimulants. — But in cases of violent, or Inflammatory Fevers where y^e action of y^e vessels is great, or y^e Fever violent, their application always does this chief.

VI. Indication

The Disease is to be prevented from recurring.

This principally takes place in Remitt^t & Intermitt^t Fevers, for these means can be seldom us'd in continued Fevers. — We prevent y^e Periods for recurring & diff^r ways by avoid^g y^e Causes w^{ch} induce y^e to recur — By counteract^g these Causes w^{ch} y^e come place — By prevent^g those Causes for act^g by destroy^g y^e Irritability.

I have shewn you y^e if y^e first Crisis of a Fever was perfect, & y^e symptoms of y^e first stage fully carried off, y^e there must be a fresh cause necessary to induce it to recur; but this is not y^e case in subsequent crises; for if y^e Inflammation is perfectly clear, yet the Disease does many times recur. — tho' this is not always y^e case, sometimes neither y^e strength of Habit, nor y^e good^g Proxym^{on} ^{are} suff^t to bring it on. — To prevent its recurring,

Of Continued Fevers

1. To take off
of remaining
by Med. prod^g
equable circulation

We give
them.

not proper in
cold prof^d fevers

We endeavour to take off of symptoms of 1st stage w^{ch} may remain, & w^{ch} w^d facilitate its reproduction — This we do, by giving at 1st time of 1st Crisis a quantity of those Med^s w^{ch} promote equable circulation by taking off of contraction of 1st vessels (vid Index at V. 1) — If we throw in some of these Med^s in 1st part of Fever we frequently procure a perfect Crisis, & if 1st Disease does not recur; or if a perfect Crisis is not obtain^d, we greatly increase of chance of a perfect one may soon take place. — If in Intermit^t 2 or 3 Crises have happen^d & none of y^m are perfect, but some contraction of 1st vessels remain; if 1st Patient is tolerably strong, we apply at 1st begin^g of 1st Intermission & thro' of whole of it a quantity of these Med^s. — If we have any suspicion of there is a quantity of fluid in the bowels in 1st stomach, we give these in such quant^{ys} as to vomit. Pat^t, managing it in 1st manner we have already describ^d; if 1st vomit^g is violent we lose of benefit of our Med^s, as we give y^m not only to clear 1st stomach but principally to open 1st capillaries. After 1st Dis^e has continued for 4 or 5 days by lead^g it in this manner we obtain a perfect Crisis, & sometimes if Fit is prevent^d — Emetic Tartar is 1st best of these Med^s, but w^{ch} we want to vomit, we frequently use Spessacuanba — Some have given these Med^s in 1st Cold Fit, but w^{ch} y^m are given so as to bring on a vomit^g in 1st Hot Fit, they disturb of course of 1st Fever, but if they have not this effect, y^m may be productive of consid^{ble} Advantage. — Neutral salts have been given to take off of contraction of 1st vessels, some have chose of Digestive salt of Silicis, others Vitriolic Tartar, & others Sal Communiac; but Vitriolic Tartar seems to be 1st best because it is least soluble in 1st stomach. The worst consequence attend^g of use of these salts arises from y^m purgative Quality whereby y^m bring 1st Dis^e to be redoub^d, & change an Intermit^t to a Remitt^t; tho' in 1st begin^g of 1st Dis^e their purgative quality may not be attended wth much ill effect; but w^{ch} 1st Dis^e has continued some time, this purg^g will cause of it to recur & thereby prevent their effects to cure of 1st Disease.

Of Continued Fevers

Causes of Fevers
to be avoided

We need hardly mention, if in order to prevent ^{the} recovery of Fevers ^{the} causes of Fevers are to be carefully avoided, such as Cold, Putrid Vapours &c. w^{ch} will cause a Fever manytimes to recur w^{ch} of Intermittion is ever so dear.

The Med^l promot^g equable Circulatⁿ just recommended are almost suff^t of th^{em} to prevent ^{the} recovery of Fevers, but they make way for more efficacious med^l.

2 By counteracting
the Cold Fit

2 By counteracting of Cold Fit, before, & at ^{the} time of Recession.

By doing Stimulants
w^{ch} Med^l produce
equable Circulatⁿ

In this purpose we join Stimulants to ^{the} Med^l produce^g equable Circulatⁿ — By this method, if Cold Fit is frequently taken off at its accession; but they are easily more powerful if given bef^{ore} if fit takes place, y^t afterwards — If ^{the} cold Fit is prevented, if hot Fit is also prevented fr^{om} tak^{ing} place, as if later is a consequence of ^{the} former.

Med^l produce^g equable Circulatⁿ act wth much greater certainty w^{ch} joined wth stimulants; for as these later increase ^{the} action of ^{the} Vessels a greater quantity of blood is thrown into ^{the} relaxed capillaries whereby they are kept open; & ^{the} more powerful Med^l of ^{the} former kind are to be us^d such as preparations of Antimony for natural Salts are not sufficient. — But Stimulants given alone may do great mischief, for if ^{the} contraction of ^{the} Vessels is great, they produce a violent Hot Fit w^{ch} is irregular y^t is, when ^{the} Vessels are not act^{ing} equally thro^{ugh} ^{the} whole system; for they cause a greater quantity of blood to circulate on ^{the} skin or ^{the} head while ^{the} contraction on ^{the} internal Vessels remains as great as before; in consequence of w^{ch} no regular Crisis is to be obtain^d.

By apply^{ing} these two Med^l together, we prevent ^{the} Dis^t from recur^{ring}, or render it ^{the} very slight so y^t it is easily removed on a 2^d applicat^{ion}. — I have seen 6 Intermitt^{ents} set off ^{the} Cold in this manner; they are not however always to be applied, for where there are symptoms of Inflammatory Diathesis, there is great danger from Stimulants.

w^{ch} apply^{ing}.

In such Fevers where there is a great degree of weakness & Irritability this method has not ^{the} effect we so desire, & after ^{the} effects of these Med^l are over they increase ^{the} weakness of ^{the} Patient. — These Med^l are chiefly to be apply^{ed} to Intermitt^{ents} in ^{the} spring after ^{the} Inflammatory symptoms are over. — The Stimulants are chiefly use^d for this purpose are, Allium, Itrape, Aromata, externally: Chromata, Alkali Volatile, Urinum, Opium, Marshm^{ell}, Camphor internally apply^{ed}.

Of Continued Fevers

By destroy-
the Irritability

By that prevent^g of Causes produc^g of Dis^e from affect^g of system so powerfully
as it wd naturally do (i.e. destroy^g of Irritability) such as Cortex Peruvianus,
Vitriolum & Murea ferri, Uracolum lupri, Alumina, Cortex Traxini.

The Bark not to be
given in it. For.

There have been great Disputes abt^g of applicatⁿ of of Bark & of like subst^s w^{ch} destroy
of Irritability — The Bark is undoubtedly of most powerfull of all others & therefore
we chuse to use it. — The Bark does not cure if given during of Fev^r; for tho^{se} there
may be some Instances of the Fev^r at y^t time, yet it gently increases of Dis^e, prolongs
it, & some times changes it to a Continued Fever. — The manner of its action

By destroy-
the Irritability

is by destroy^g of Irritability, & we have many times apply^d it in diff^t Diseases
so as to cure for this principle. — Thus, if it is given while there is any stimulus
substance in of Body, it takes off of effects arising from of Irritation — Wⁿ given
in a Gonorrhoea, for example, it lessens of Inflammⁿ; but if it is given where
there is no Stimulus, an Inflammⁿ is greatly increas^d thereby. — The same holds
true concern^g all other Ulcers attend^d wth consid^l pain from of stimulus of of
Neutral salts, whereby a large secretion is made in of part, of Bark being
apply^d, will prevent of part from being irritated, whereby of Ulcer is prevented
from spread^g. — Bark given to persons who are to expose y^rs^l to any of of Causes
of Fever will prevent y^r from fall^g into of Dis^e; there is a remarkable Instance
of a General engag^d in a war in Hungary who preserv^d himself & Family while
a Fever & Dysentery universally prevail^d by of use of of Bark. —

Bark therefore has of power of prevent^g any Dis^e from recurr^g; it does not cure Intermit^t
by any specific quality, but by this general quality of prevent^g of recurr^g of Dis^e.

— The particular method of its exhibition we must leave till we come to treat of
Intermitt^t Fevers; we shall at pres^t only give a sketch of of manner of its exhibitⁿ
in Fevers. — Wⁿ of Body is strong, of Bark can never be given to Advantage — Thus
it is not to be given in of begin^g of Fevers, nor must it be given in Intermitt^t Fevers
if of habit is strong & of Intermissⁿ not clear; — it does sometimes cure in those cases,
but it is not to be depend^d on, for it frequently changes a Remittent in those
circumstances to a Continual Fever.

Manner of its
Exhibition.

Of Continued Fevers

The Bark may be given in if end of continued Fevers w^o not attended wth either a Delirium or Stupor, whereby if Irritability will be destroy'd & if Exacerbation prevented. — In weak Patients we give if Bark where if Interruption is not perfect, by destroy'g if Irritability it causes if next Fit to be more violent & in consequence thereof if Interruption will be more perfect, & then if Bark may be given to still greater Advantage. — It is said if salts of Copper are more effectually to destroy if Irritability; but if are attended with this disadvantage y^t if are apt to make if Patient Sick, & this is a heavy sickness & of long continuance; on w^{ch} acct. if can't be given to much Advantage.

There are one or two Clases of med^s w^{ch} have been apply'd w^{ch} have not been enumerated, for if effects are not certainly known. — The first Class are the Antispasmodics w^{ch} take off if symptoms of 1st stage — These have been given at if end of continued Fevers, & sometimes wth Advantage, but they have not been in suff^t practice to ascertain if real virtues; there are Musk & Volatile Alkali; Oil of Clove & Clove are still more effectual. — Hoffman hints greatly to these in order to take off if Delirium; but I can't say if I have seen any great effects fr^m if; besides if Patient is in such a situatⁿ, if if we increase if weakness, he is in if utmost danger of b^eg destroy'd.

Resolⁿ of Lead & Tin.

Another Class are if salts of Lead & of Tin. — The salts of Lead are such powerful sedatives y^t I sh^d be loath to exhibit if; if salts of Tin have been given wth some Advantage, but if virtues are not suff^t to be depended on. The Diversion of if Thro^t has been of service to prevent if return of Fevers; but this can only be of service where if Anxiety of if Patient has a tendency to bring on if Fit.

Thus we have gone thro' if History of Fevers & shewn you their Causes, symptoms, Progress, & Cure — Before we co^d enter on Fevers it was necessary to go thro' if Doctrine of Inflammⁿ, as if strength of if Pat^t produces several symptoms in Fevers. We shall now go on to if particular species of Fevers, & shew you their several Peculiarities & if manner of treat^g them.

Of the Plague

We have already divided Fevers into continued & intermittent; we begin now with
 of Considerate of particular Fevers of 3rd Kind. — where of symptoms are very
 Fevers distinguished violent, we call you by of name of Violent Fever; they have been also called by
 of name of Putrid, Peccant Fevers &c. — where of symptoms of of first stage are
 not violent & of strength is great we call it an Inflammatory Fever. — And where
 of symptoms of of Putrid & weakness is great, we call it a Nervous Fever. — There
 are innumerable differences below these; but we only treat of of extremes, leaving you
 to apply this Doctrine to all of intermediate states.

Of all Fevers of Plague is of most violent. — The description we have given of it
 by Sydenham & others, represent it as a Fever in which of symptoms of of first stage are
 so violent as frequently to destroy of Patient.

It arises
 it arises.

The Plague is always produced by putrid vapor apply'd to of Body. — It generally takes
 its rise in Egypt at of time when of water of of Nile (which overflows of Land comes
 to dry up, & of stagnating water to putrify: but this is not of only place; ^{where it is produced} on
 of coast of Persia where there are large Lakes where of water putrifies to a great
 degree of Dis. frequently takes place; also in Suegal & other places on of
 Coast of Africa of Rivers overflow a large tract of ground, & leave a vast quantity
 of Fish & other Animals to putrify; at this time a Dis. takes place in every
 respect of some with of which is described to take place in Egypt. — so of
 Putrid vapor is evidently of cause of this Dis.

how communicated

It is generally communicated from those Countries to others, either by diseas'd
 Patients bro't from one Country to another, or by putrid vapor bro't in goods
 or some other way. — It is certain, if we Persons come from diseas'd Places, & bring
 no putrid vapor with of, of Dis. is not communicated; if this had not been of
 case, we should never have been able to keep clear of it in Europe as we have done
 with a little precaution, as we maintain a constant Trade with of infected Countries.

Of the Plague

Besides, this putrid Vapor must have some Substratum to work upon; now the structure of our Buildings in Cities are of such a form, if Air has much free Circulation whereby its healthiness is maintained; whereas formerly w^h Fortifications were so much in use, Houses were so crowded upon one another, if a great quantity of putrescent matters were confin'd, & in such a state of Air, a small quantity of putrid Vapor w^od readily excite a fermentation.

Putrid Vapour will produce violent Fevers attend'd with great danger, & it is a question, whether putrid Vapor arising from human Bodies is not more noxious of any other kind, tho' we cannot sufficiently determine this for want of proper Experiments — This we know, if of more putrid any Vapor is, if more powerfully it produces of putrefactive Fermentatⁿ; whereas Vapor if it is verging to putrefaction will have but little effect. — If of Air contains a quantity of putrescent Matter in it,

& there is a quantity of putrid Vapor apply'd, if Air will putrefy — but as putrefaction rarifies of Air, it will be rais'd in consequence thereof to y^e top of of Atmosphere where if degree of Cold will check of putrefaction; but if a Wind sh^od arise w^h blows this Vapor to y^e Earth it will be productive of great Mischief.

We find w^h w^h strong winds blow from those Countries where if Plague rages, if Infection spreads in consequence thereof; but where no such wind blows unless if Plague is communicated by Cloaths &c it does not prevail.

Now, all Persons living in a Country infected by if Plague are not seiz'd by it, nor are those if are infected immediately seiz'd, so if it is not necessary if of Cause sh^od immediately act as soon as it has taken place.

If we examine into if Methods if have been most successfully made use of to guard ag^t if Attack of this Dis^e; we shall find y^e to be such, as take off if Irregularity of System & if other causes of this Dis^e. — w^h other causes of Fever are not apply'd persons are not so liable to if Infection, whereas, Grief & Anxiety are remarkable for producing it — If if putrid Matter is apply'd in small quantities it has not of same effect as w^h apply'd in larger quantities; nor does it appear to operate

Of the Plague

is powerful on Bodies of an but little Iradable as it does on Bodies of a greatly so; thus we find of this Dis^e is greatly diminished by of cold of Winter. It is always produced by Putrid Vapor apply'd to of Body, sometimes actg. as of sole cause, sometimes in conjunction with others.

Causes

Distinctions

Of all continued Fevers this attacks of Patient with of most violent symptoms of of First Stage; with of greatest prostration of strength, great pains of of Head & Back, great Swell'd in of Praecordia, sickness; & sometimes great coldness of of Extremities. These symptoms increase in it, & fast at every ^{of any other Dis^e} exacerbation, & produce of symptoms of Weakness of quickness, particularly those of Putrid Blood. The symptoms of of first stage are followed by those of of Hot Tet, such as great heat & burning in of Praecordia &c. but of Fever seldom comes to a Crisis; delirium comes on & of Put^r is cut off. There is also such a degree of weakness not on by two or three Tets, of of Put^r frequently dies of it.

In colder countries attended with Inflam^y symptoms.

In colder Countries, there are at of begin^g several Inflam^y symptoms, such as a full Pulse, & Blood with a buffy coat, so of Sydenham mistakes it for an Inflam^y Fever. This shows, of of Putrid Vapor on its first application does not putrify of Blood. But it is not attended with these symptoms in hot Countries.

Partly inflam^y of Lymphatic Glands

In all Fevers especially when there is an Inflam^y Diathesis, of Dis^e is very apt to run & a very slight Stimulus will excite a full Inflam^y; now in of Plague a particular kind of Inflam^y frequently happens, of of Lymphatic Glands, very possibly a part of of Putrid Matter is absorbed by those Glands, & ferments there. But these Inflam^y are not able to have those symptoms increased, as in other kinds of Inflam^y; instead of going on to suppuration they frequently end in Gangrene & Ulceration, probably of Putrid matter greatly contributes hereto. These Inflam^y have been consid^d as a Criterion of this Dis^e, but this is by no means a certain one as of Dis^e may subsist without it, as well as other Dis^e be attended therewith. In of last Indies, when water has putrified Fevers have been generated with of same swell^g in of Lymphatic Glands.

Of the Plague

1st of Dis^e. has continu'd for sometime; tho' if Blood was originally Inflammatory it soon comes to be very putrid, partly thro' of violence of of Fever, & partly from of Effects of of Putrid matter itself; all of symptoms of Putrefact^{ed} app^{ear}: such as Petechiae, Putrid Faces, & dark colour'd Urine. — There are also great symptoms of of weakness of of Nervous Power; the Exacerbations are very great & very long & if Inflamm^{ation} does not take place, symptoms of great weakness soon come on. Haug has given of History of of Dis^e. we come next to cons^{ider}: of manner in which it is to be treated — But we must speak a little of of manner of Prevention.

Gen^{eral} Prevention The Putrid Vapour in of Air may perhaps be destroy'd by impregnating it w^{ith} Acids; as by burning great Quantities of Wood, or detaching great quantities of Concentrated Muriatic Acid from sea salt by of Vitriolic, & evaporating it. — We don't know w^{hat} this Vapour is compos'd of, but it appears extremely like of Hepar Sulphuris & has some of its properties, particularly of same Smell, & of same Effect in Blackening of surfaces of Metals — it appears however of Acids have a particular Power of destroy^{ing} it.

Partic^{ular} Prevention Fear, Grief & Anxiety, indigestible & flatulent Food, Costiveness, Cold, & other causes of Fever are to be avoided as much as possible. — The best way w^{ould} be to for Persons to make yet escape to of tops of some high Mountains, for we have no Instance of of Plague prevail^{ing} in such situations; but it w^{ould} be disgraceful for Physicians to fly, as they might at of time be peculiarly useful to give favour'd Creatures. Mod^{erate} destroy^{ing} of Peritability of of Body may be exhibited to cons^{iderable} Advantage Wine, Opium & of Bark, may be taken, especially on exposing ourselves to danger of Infection; but these sh^{ould} not be us'd in great Quantities; 2 or 3 Drains of of Bark in 24 Hours are suff^{icient}; if we give it in larger quantity we shall not be able to continue of Exhibition of it as long as may be necessary — 'Tis best to Enfuse it in Wine & to join of Spirit w^{ith} it of thereby it may be render'd more agreeable to of Stomach

Of the Plague

Cure

The symptoms of
1st stage when
off by madly operative.

If the Infection has already taken place, we w^d treat it in y^e following manner.
The Fever must be put a stop to if possible, by y^e most powerfull means of
taking off y^e symptoms of y^e first stage — We have no advantage to expect
fr^m y^e Fever itself, y^e whole method of Cure must be therefore Antiphlogistic.

We must begin wth q^{ue} medicines produci^g equable Circulatⁿ, such as Spicamanka
wth Emetic Tartar, & if in such quant^y as to clear y^e stomach, but it must
be done in y^e manner already describ^d so as not to encourage y^e vomit^g.

By a vomit

It is commonly y^e case y^t this produces violent vomit^g at first; it is well
known y^t Emetics take off vomit^g in y^e most effectual manner, both by
clearing y^e stomach, & by produci^g equable Circulatⁿ — If y^e sickness is increased
by y^e vomit^g, yet Emetic Tartar will soon take it off, as by Experience we

By sweat^g

find it does much sooner y^t y^e exhibition of warm water — Especially if
y^e Pat^t is kept warm so as to make y^e blood circulate towards y^e skin.

If the Pat^t sweats, he sh^d be wrapt in Flannel; for if a Person sweats in Linnen
after y^e sweat^g is over, a fresh degree of Cold is apply^d to y^e body by y^e water
evaporat^g fr^m y^e damp Linnen. — After y^e Pat^t is somewhat warm, an Opiate
sh^d be given to put a stop to y^e vomit^g; for tho' Opium do generally great
Mischief, yet in this case y^e is of service, as y^e give room to y^e Emetic Tartar
to act in its full force upon y^e stomach so as to produce equable circulation.

Probably a sweat will break forth, & in y^e case it sh^d be encouraged by small
Doses of Emetic Tartar repeated every 6 Hours, for y^e space of 18 Hours, by
w^{ch} means y^e 2^d Exacerbatiⁿ may be avoided.

This Dis^e has been entirely cur^d by keep^g up a sweat wth Stimulat^g Bro^w, & ^{some} Physicians
found this to be y^e best method. — But tho' produci^g equable Circulatⁿ best ans^r y^e
Intention, & it has been found by ^{some} Physicians ~~to be the best~~ to succeed best
in other Fevers; but we w^d not recommend it, for if it fails of succeed^g, it weakens
y^e Pat^t so much, y^t y^e weakness destroys him; but in this case, where y^e Fever cannot
go thro' its natural Stage, we w^d make use of it.

This method not to be
resorted to in other Fevers

Of the Violent Fever.

Dark given to prevent a Relapse, & must be given in large Quantities.

This is the Method we w^d recommend in these Cold Countries; But it will by no means do in warmer Climates, as if Pat^t w^d be too much weaken^d thereby.

In those Countries it puts on the form of an Intermitt^t. in such a case we may continue to give y^e Bark dec^y of Kamipson, whereby a perfect Crisis may be obtain^d. — But this is not confirm^d by my own Observatⁿ. but never had an opportunity of seeing y^e Dis^t; but by y^e Observatⁿ of others.

An Inflamⁿ of a Symplicial Island, sometimes arises at y^e begin^g, & diminish^e or wholly carries off y^e Fever. This Inflamⁿ is never to be carry^d off, but always bro^t to a suppuration.

of the Violent Fever

Otherwise call^d y^e Putrid, Malignant, Jail, Camp, Hospital or Petechial Fever.

Causes

This Fever generally arises from Putrid Vapours apply^d to y^e Body; it has its Name either from y^e Putrid Matter fr^m whence y^e infection arises, or y^e Place where this putrid Vapor is form^d, such as y^e Jail, y^e Camp or y^e Hospital; On acct. of y^e violence of y^e Dis^t it has been call^d a Pestilential Fever; And on acct. of y^e black spots y^t appear wth it, it has y^e name of Petechial Fever. — But none of these are very proper appellations; for at the begin^g the Blood is so far from b^g Putrid, y^t it is often Inflammatory. — Nor can we call it by y^e name of y^e Jail or Camp Fever, because it happens sovery where else — Nor can it be call^d Pestilential, for y^t supposes something we are not acquainted wth: — Nor lastly does it deserve y^e name of Petechial Fever, for it frequently destroys y^e Patient, before y^e spots do appear.

It destroys chiefly by y^e violence of its symptoms, or by y^e weakness of y^e Pat^t loss^d of later end of y^e Dis^t.
It proceeds from Putrid Vapours; this is most liable to produce Contagious

Of the Violent Fever.

Putrid Vapor most
likely to produce
continued Fever.

If Fevers arise from Cold, they are apt to break down to Intermitt^{ts}: but in this
Fever if symptoms of inaction of y^e Herveous Power are much greater yⁿ
in any other, & continue for a longer time, sometimes it is two or three days
before a Period comes on, & if prostration of strength continues thro' the
whole Dis^e: — hence it is, if this Fever is more dispos^d to prove a continued yⁿ an
Intermitt^t Fever. — When it arises from cold, y^e symptoms of y^e first stage chiefly
arise from y^e contraction of y^e capillaries, w^{ch} throws y^e Blood in gr^t quantities on
y^e Heart, w^{ch} react^g on y^e capillaries thereby removes their obstructions, & so
produces an Intermision. — But it is certain also, if many Fevers arise from
Cold have many of y^e circumstances of putrid Fevers along y^m.

Not y^e same effect
on diff^t Persons

Putrid Vapor is frequently apply^d to y^e body with^o any manifest effect: thus
in y^e case of y^e Felons y^e foot of Putrid Vapor to y^e Oil kindly already refer^d
to, they y^m selves were not affected by it, as well as several others y^m present in
the Court. The Body is not always susceptible of y^e Dis^e: — A Person accustomed
to live in a Putrid Air, is not nearly so liable to be affect^d thereby as a Person
y^e is not so accusom^d. — Besides, w^{ch} cold is apply^d so as to act wth y^e
Vapour it is vastly more liable to produce Fever, yⁿ w^{ch} y^e Putrid Vapor is
Apply^d Alone. — Again, w^{ch} y^e vessels are suppl^d by any evacuatⁿ, a Person
is much more liable to be affect^d thereby. — The Fever does not always come
on upon y^e applicatⁿ of y^e Vapour, it may be 2 or 3 days before it makes its
appearance, tho' in many cases, it commences immediately on y^e exposure of
the Body thereto. — In y^e first case, there are some few symptoms produc^d
such as Headach, Languor, Anxiety abt^g y^e Praecordia together wth a nervous Palen^s
w^{ch} continues for several days after y^e exposure. — If the Pat^t sh^d expose him^s
afresh to cold, or Putrid Vapor, a Fever will then be immediately produc^d,
but if he does not, y^e symptoms may go off — these symptoms will disappear
in y^e same manner as y^e Cold Fit of Fever. — I have myself, by long expos^r to
Putrid Vapor felt these symptoms, but by not exposing myself afresh, & by med^t: producing
equable circulation, they have soon disappear^d.

The Fever does not
always appear on y^e
Infection —

Of the Violent Fever

Distinction
Prognosis consists
the History of the

This Fever attacks of Pat^t with violent symptoms of it first Stage especially those with Indicate great inaction of it Nervous Fluid. — Generally of Fit is preceded with great languor & weakness, vast anxiety, ab^s of Phacordin, go^t such as, & Vomiting; pain in it Head & Back. The Hot Fit is not readily produced — the Heat w^{ch} is it first symptom very often goes off, & if cold returns; during the whole of it first Period, we have these frequent fresh exacerbations — On the 2^d week there is a fresh exacerbation, & if hot Fit succeeds it; the Cal^d is not cold afterward. Till such an exacerbatⁿ takes place as produces a Crisis.

Generally Persons who are exposed to Putrid vapour & are affected thereby are considerably weaken'd for their manner of life, as soldiers in Camps, & Prisoners in Sails — The Fever thus not attack? Strong Pat^t is attended but with few symptoms of strength; but where it Pat^t is strong there are always symptoms of strength appearing, such as hardness of it Pulse, but then, these symptoms seldom arise to it degree as to do much harm; if inaction of it Nervous Power prevent^s it Blood for being thrown upon it Brain in great quantities. — Topical Inflammⁿ do sometimes arise in diff^t parts of it Body & in it Brain as well as in other parts of it Body, as appears by Dissections. these are attend^d with other symptoms of Inflammⁿ of it Brain, such as do swell'd Eyes; w^{ch} shew^s up. if Delirium arises for too great a quant^y of blood thrown on it Brain — unless for such topical Inflammⁿ of it Brain, there is but very little danger of Inflammⁿ in this Fever. — The Fever goes on merrily, there are some relaxations in it Morning, but every exacerbatⁿ increases & at it 2^d week of Fever rises to a great height. — Delirium is very frequent, sometimes it goes off wth it other symptoms in it Morning, but sometimes it continues thro' it whole day, & if Patient is cut off thereby. Sometimes, in it 2^d week, if it Patient has not been weaken'd by Blood?

Of the Violent Fever

The Fever comes to a Crisis, but where evacuations have been used in the begin-
 Crisis very seldom happens in this Fever. — Towards the end of the 2^d week of
 exacerbations become less & less, the Delirium is converted into a Stupor, of Pat.
 lying almost insensible; for if most part such Patients recover; they frequently
 live two or three weeks in this manner, & then become gradually more and more
 sensible & at length fully recover. — In cases where the Delirium is not violent
 & exacerbations come to be less & less at the end of the 2^d week, & a Crisis comes on
 at the 13th or 14th Day; sometimes the Dis. leaves the Pat. gradually with very
 imperfect Crises at the end of 3 weeks.

Towards the end of the Dis. when the Stupor does not arise there is great danger from
 weakness & Irritability attending it; if the Pat. was originally weak, or
 weakened by evacuations, the Pat. is in great danger. —

The Blood now becomes putrid, partly from weakness, & partly from the effect of the
 Putrid Vapour. — The first symptom of this putrid Blood is the Brownness
 of the Tongue, then Petechiae & marbling of the Skin confirm it. — Sometimes the Tongue
 becomes quite black, & the mouth so foetid that the Teeth can't be seen; the Faces
 become putrid; the Breath foetid; the Urine also loses its transparency & becomes
 black & sometimes foetid. — 'Tis very seldom that the Blood putrifies to the degree
 in the Vessels as to become foetid; & is great factor of the different evacuations take
 place after their separation from the Blood. The greatest Putrefaction which takes place
 in the blood vessels is when it converts the whole into Glue, & renders the Globules
 soluble. — We have then *Sabullosa Tendinum* & other symptoms of Irritability; the Pulse
 is particularly changed, there is such a weakness & softness in it as is hardly found in any
 other Disorder. — The Nervous Power being greatly weakened, the vessels contract but little so that
 the Pulse is easily stopped by the Finger, & towards the later end becomes tremulous. — If evacuations
 have been used, or Stimulents applied too soon, this raises the weakness & Irritability to such a
 height that a Delirium is produced & the Pat. cut off. — Sometimes Supp. Inflamm. arise
 at the beginning of the Dis. which greatly relieve the Patient, but they do not cure the Fever, but continue with it.

Of the Violent Fever.

Prevention

Having thus given a History of *y^e Dis^e* we come next, ^{to cons^r} of manner in w^{ch} it is to be treated. But lest we proceed, we ought to speak a word or two of *y^e manner of Prevention*. Putrid vapor is to be avoided as much as possible in Cities, Camps &c where Putrid vapors is contained; by keeping those Places as much aired as possible, by evaporating Urine or other Acids, or burning of wood, whereby *y^e Air* may be impregnated wth Acids; by these Methods *Dis^e* arising from putrid vapors have been lately greatly avoided. w^{ch} Persons being ^{apt} ~~to~~ exposed to *y^e Infection*, if same means must be made use of as in *y^e Plague*; we take off *y^e Irritability* by *y^e Bark*, Wine or Opium & also by *y^e Application* of Stimulants.

Cure

If a few symptoms of *y^e Fever* should arise, we may frequently get free of *y^e y^e* by *y^e Med^{ic}* *y^e* produce equable circulation; & if we suspect a quantity of Mucus in *y^e Stomach*, we give *y^e* so as to vomit; but if not, they are to be given so as not to make *y^e Pat^t* sick. Preparations of Balsmony are to be chiefly relied on, & not *y^e Mercurial salts*, tho' there have been sometimes efficacious. All *y^e other Causes of Fever* are to be carefully avoided.

we are to assist *y^e Dis^e* in its nat^l progress

Tho' this Fever is dangerous if left to itself; yet 2 Pat^ts out of 3 may recover by *y^e Dis^e* going thro' its natural Progress: we are not therefore to attempt putting a stop to it at all accounts, but only to assist *y^e Progress of y^e Dis^e*; or if we attempt to take it off, it must be in such a manner as not to deprive *y^e Pat^t* of *y^e chance of y^e Fever's* going thro' its natural Progress.

10th evacuations may be admitted if

It seldom happens *y^e* *y^e symptoms of strength* are so great in *y^e begin^g* of this Fever as to need any evacuation; but if *y^e Pulse becomes very hard*, wth great flushings in *y^e Face* wth redness of *y^e Eyes* & Delirium, we are to use *Evacuants* to prevent the Pat^t being destroyed by *y^e Delirium*; where these symptoms do not take place we should take no Blood away; a small bleedg will take off these symptoms. 10 or 12 Pains are suff^t & *y^e symptoms seldom recur*. The Danger does not arise from symptoms of strength but from those of weakness, whereby *y^e Pat^t* is in danger of being cut off towards its later end of *y^e Dis^e* if there be not considerable strength at *y^e begin^g*.

Of the violent Fever.

If we can take off *if* Fever in *if* begining it is much to be desir'd; but this is to be attempted in such a manner as not to disturb *if* Progress of *if* Fever *if* they sho'd not succeed. — We give for this purpose Med^{ts} produc^g & repeale Circulatⁿ, but not in *if* manner we do in *if* Plague; we give *ym* at *if* time of *if* Exacerbation *ym* off may act together with *if* hot Pitt in order to ease *if* Distⁿ; we generally give such a quant^y of Iunctie Tartar wth Specuamanka so as to vomit 2 or 3 times, but we w^od avoid urg^g *if* vomit any further by caus^g *if* Pitt. to lie in Bed; & then we administer an Opiate, w^{ch} seldom has any bad effects here. — We are not to throw *if* Pitt. to any sweat, as *if* Distⁿ is not to be used in this manner, & *if* Pitt. will be greatly weaken'd thereby. — The Pitt. is to be kept warm — this Med^{ts} they administer & frequently give relief. — At *if* next Exacerbatⁿ, we give smaller Doses of *if* Iunctie Tartar, & repeat *ym* two or three times in *if* night; By thus repeat^g it for two or three days, *if* Pitt. is reduc'd, & *if* Fever is many times terminated in *if* 2^d week; or at least *if* Pitt. is not so much weaken'd as he w^od otherwise be, so *if* *if* this does not ease *if* Distⁿ it renders it more tolerable — Some have tho't *ym* these Med^{ts} are best given thro' *if* whole of *if* Day; but *if* Pitt. may be hereby considerably weaken'd & *if* progress of *if* Fever greatly disturb'd, so we think it best to administer *ym* only in the Evening.

At *if* begining of *if* Distⁿ *if* there are symptoms of strength tis necessary to give some gentle Sedatives; besides it is necessary to give something on *if* intermedicate savors, for *if* *if* Pitt. is not continually tak^g someth^g he will be hurt by his own Anxiety — We therefore give Acids thro' *if* whole of this Distⁿ.

Small Doses of *if* Neutral Salts have been frequently Administer'd; but I don't think *ym* their exhibition is attend'd wth any Advantage, because *ym* are never powerfull enough to take off, or even to diminish *if* Distⁿ; besides *ym* tend to weaken *if* Pitt. & specially *if* *ym* purge; so *ym* *ym* weaken more than Antimonials, wth *if* proper of relief fr^m *ym* *ym* there is from *if* other.

The Fever to be
taken off by Med^{ts}
which produce
repeale Circulatⁿ

to be
promoted

Small Doses of
Iunctie Tartar
reduc'd *ym* Exacerbⁿ

by Sedatives

Of Violent Fever

The belly kept open

The Belly should be kept open, ^{by small quantities of neutral salts} tho' purg'g sh^d never be us'd in this Dis^e.

Delirium arising 2^d week w^{as} is taken off by Blisters

In 2^d week of Dis^e becomes more violent, & if every Exacerbation becomes greater they are frequently attended wth Delirium. But not of y^e inflamm^{atory} sort, but of y^e kind w^h arises fr^{om} y^e contraction of y^e capillary vessels, attended wth pale Urine, dry skin & sunk eyes; this Delirium continues frequently thro^{ugh} y^e whole Day and at y^e 2^d or 3^d Recumbat^{ion} of Pat^{ient} is cut off. — This Delirium is frequently cured off by Blisters — Med^{icines} of y^e produm squable exulat^{ion} are sometimes of service. but if they are not off frequently do mischief; so y^t it is a Question whether y^e sh^d not be omitted — Blisters is w^h we chiefly depend on w^h must be apply'd to y^e Thro^{at} & Back; for if nearer they are apply'd to y^e seat of the Dis^e y^e more effectual y^e are. As it is of Functions of y^e Brain y^e we intend to relieve, Blisters apply'd here are of service. — If y^e first Blister is of service, sh^d y^e Delirium return, a 2^d may be made use of; but if y^e first has been of no service, a 2^d sh^d not be apply'd.

The only line off use of it to relieve y^e Delirium arising fr^{om} y^e cold Fit of Fever; if they relieve y^e Delirium, it commonly ends in a Stupor; then we have nothing to do

Irregularly caused by Rides

but to support y^e strength of y^e Pat^{ient}. — If there is no Stupor, we must endeavour to take off y^e Irritability; Rides are given w^h consider advantage for this purpose.

— They may be of some use also to correct y^e Obstruction of y^e Blood; but we find it generally goes on nearly as much, as if y^e were not administered. — They are of service however to destroy y^e Irritability, & to enable us to give Stimulants along wth them.

Belly kept open by Clysters

The Belly is to be kept open by Clysters, tho' we dare not venture on ^{any} ~~common~~ Med^{icines}. In y^e last place we must use Stimulants, but we must be on our guard ag^{ainst} giving y^e too soon; not^{hing} but y^e weakness of y^e Patient sh^d lead us to use y^e at all.

Pat^{ient} supported by Wine

Wine is y^e most powerful, w^h is to be given accord^{ing} to y^e strength of y^e Patient; sometimes a Pint, & soon a Quart of Wine has been allow'd in y^e 24 Hours — it sh^d be so given y^t y^e effects of y^e last Dose sh^d operate before y^e former ceases.

Of the Violent Fever

It is a Question, whether it should be given pure, or mix'd wth Water; either way it may be useful, tho' the latter seems most preferable.

Other Stimulating Meds may be given, tho' I should rather chuse to stick to op^{um}. if it might be permitted; but Patients will not believe you are ever wth op^{um} if you give you nothing else. — The other med^s we wd prescribe are of Antispasmodics such as Musk, Camphire, Volatile Alkali &c. — but they are to be given wth caution, examining of Pulse dur^g of exhibition, & if you find it more frequent, you are to be laid aside.

The Cranialic Roots may be also given wth of Acids; but of spices sh^d never be given; I never saw op^{um} given wth Advantage; but many have been destroy'd thereby, of Irritability b^y greatly increas'd by their use. Neither are Blisters of any service to support of Strength; they increase of quickness of of Pulse & do much mischief.

If no Stupor comes on, & there are consid^l hemorrhages in of morn^g, then of Bark may be given in small Doses, & increased as it agrees wth of Patient — If consid^l symptoms of of first stage remain, such as Dryness of of skin, & clear Urine, & these continue for of greatest part of of Day, of Bark cannot be given; but if of symptoms are not present, & of Bark continues to relieve of Patient, it may be continued.

Med^s produce of equable Circulatⁿ tho' they take off of Fever at this time, yet as of greatly weaken of Pat^t in consequence of wth he is liable to be destroy'd, are therefore not to be given.

The Food throughout this Dis^e must be such as is compos'd of of Farinaceous seeds.

Of the Inflammatory Fever

Those, who live in large Towns, who breathe an impure Air mix'd with putrid vapours & partly destroy'd by of Respiration of men & Animals, are considerably weakened thereby, & therefore are not much liable to Inflammatory Disorders.

Of Inflammatory Fevers.

In warm Climates, if Inhabitants are weaken'd by if Heat, w^{ch} act^s constantly as a Stimulus on if Skin, & caus^s thereby a large quantity of blood to circulate on if surface of if Body; if internal vessels by hereby simp^{ts}, & if strength by hereby constantly employ'd to adapt if size of if vessels to if quantity of Blood contain'd, Persons are hereby greatly weaken'd, & therefore are not much liable to Inflammatory Fevers. — Those who live in if Country, who breathe a pure Air, make use of much exercise, & eat large quantities of food are most liable to these kinds of Fevers, & are but little subject to those symptoms w^{ch} arise from if inaction of if nervous Power.

There happens also a considerable diff. betⁿ Autumⁿ & Spring; in if Autumⁿ w^{ch} Persons are weaken'd by if heat of if preceding Summer, there are generally few symptoms arising from if great action of if vessels; But in Spring, w^{ch} if cold of if Winter has increas'd if strength of if Constitution, Inflammatory symptoms are more frequent.

Causes

Persons if live in if Country are more expos'd to cold, & most of their Fevers are produc'd thereby, tis but seldom if Putrid Vapour is apply'd to if in suff^r Quantities — and Fear, Grief & Anxiety have not suff^r power on strong Habits to produce a Dis^r; tis only on weak & frettable Habits if have these effects. Foulness of if Prima Viæ also have seldom this effect on strong Habits, because if Food or Stools are not so long retain'd in such, as in weaker Habits, & it is not frequently if Fevers are produc'd in this manner.

Cold is if principal Cause of Fevers in strong Habits, & such are seldom attended with those symptoms of if first stage w^{ch} imply an inaction of if nervous Fluid such as Prostration of strength &c w^{ch} we describ'd in Putrid Fevers. — nor do if other symptoms of if first stage arise to such a height as to destroy if Patient —

Of the Inflammatory Fever.

Distinction
Prognosis

The Danger is not fr^y of Fever itself, but fr^y of Inflammatory Diathesis, w^{ch} arises wth of hot Fit & becomes very high; if Pulse becomes very full, strong & hard, attended with frequent Respiration, a white Tongue, ~~agitated~~ ^{swell'd} eyes — then arises with these a Delirium, occasion'd by of strong Action of of Vessels. — The least Stimulus apply'd to any pt. of of Body produces an Inflammⁿ; so y^t half of these Fevers term^{ed} in Topical Inflammⁿ. — Most Inflammations take place this way, for a cold Fit of Fever comes on, & then there arises an Inflammⁿ in of Pleura, Liver or Intestines.

Topical Inflammⁿ
how produced.

We have not yet sufficiently remark'd of Causes of these Inflammⁿ; why in one case an Inflammⁿ sh^d rather take place in of Pleura y^t any other part; and in another case a like Inflammⁿ sh^d take place in of Throat. — If it was a general Cause of whole system w^d be equally afflu'd; there must be therefore some particular Cause apply'd to of particular Part. — I have frequently been able to trace such a particular Cause apply'd to a particular part; thus a Pleurisy has arose by rung hastily upstairs, by w^{ch} action of Pleura was particularly enlarg'd where of Habit is liable to Inflammation, a slight Stimulus will excite a Topical Inflammⁿ. — Thus in Fevers, some particular Stimulus is apply'd, w^{ch} of itself is not able to produce an Inflammⁿ, yet, on y^e reception of a Fever it has produced it. — We find of such Inflammⁿs commonly take place in parts y^t are most liable to of Application of Stimuli; thus the Throat, a part y^t is most liable to Distensions, & of application of external Stimuli, is frequently inflam'd. On of other hand, of Peritonium w^{ch} is a part y^t is but little distended, is seldom liable to Inflammⁿ. — wth any Topical Inflammⁿ takes place, if Fever leaves the Part. — But we are carefully to distinguish bet^{ween} Fever & Inflammatory Diathesis, this last may run high wth if Fever is gone. — wth this is of case, there are no symptoms of of first Stage left, such as dryness, paleness & contraction of of skin; the kidneys are stas'd, the urine contains a quantity of coagulable Lymph w^{ch} becomes Turbid, call *hematuria*.

They take off a Fever.

Of the Inflammatory Fever

All the symptoms of the Inaction of the Nervous Power also go off, & we have only left the symptoms of an increase & action of the Arteries. — Neither have we any exanthema in it being; or if there are, the Patient has no relaxation in it meaning we prove if the Fever is entirely removed.

But this is not always the case, for sometimes the Fever continues with the Inflammatory Diathesis, & therefore requires a very different Treatment: & being a complicated Distemper rather of you simply would do. — If no Topical Inflammation arises & no relief is administered, if Inflammatory Diathesis accompanying the Fever arises to a very great degree, attended with Delirium, Stupor, & redness of the whole Body. — The Delirium arises to a great height; it has been supposed that this is owing to an Inflammation of the Brain, but Dissections have not been able to discover any Inflammation there, neither any Adhesion or symptoms of Suppuration appearing. — It is not to be imputed therefore to any particular Affection of the Brain, yet it arises from the increased Action of the Arteries. — When this increased Action does not arise to such a height there arises an universal Swelling in consequence of the distention of the Capillaries the Patient is deprived of sleep thereby & many times this want of sleep produces a Delirium which is very dangerous, as it is frequently attended with convulsions, or ends in a Mania. — This Delirium is very different from those which arise in the first stage of Fever, or from too strong an Action of the vessels; if the Eyes are neither sunk in, nor swelled & inflamed, but clear, lively & move quickly; this Delirium does not begin with Stupor, but with the Patient talking wildly, & behaving with a vast degree of Impatience, so that they have many times attempted to destroy themselves. Sometimes if the Patient should happen to drop asleep either in a natural way, or by the use of Meds, after 3 or 4 Hours, he awakes quite composed, & almost free from every Complaint. — We may here take occasion to remark, if we can never make a certain Prognostic, for we frequently find yet Persons who are reduced to circumstances of the greatest Danger do not withstand of sometimes surprisingly recover.

Of Inflammatory Diathesis accompanying the Fever

Of Delirium in Inflammatory Diathesis

Of Delirium from want of sleep.

Of the Inflammatory Fever.

Pat. in 4th & 2^d
week weakened &
the Fever abated.

Now, if the strength of the vessels are diminished by any evacuation, or if the violence of their action is not so great as to destroy the Patient, the action of the vessels will weaken the Patient, & abate the middle of the 2^d week. He is relieved from the Fever.

Sometimes the Fever
continues wth the
Inflammation is gone

The Fever itself in these cases never runs high, wth therefore the action of the vessels subside, a Crisis easily takes place & the Fever is removed.

But this is not always the case; sometimes wth the strength of the vessels are diminished the Fever begins to increase, especially if there has been a Topical Inflammation, or if the Inflammation goes off, the Fever recurs to its violence; and as this happens in the 2^d week, the Fever remarkably puts on a typhoid type, & in consequence hereof a Crisis takes place, or if it does not, the Patient becomes lifeless till the Fever wholly leaves the Patient.

that Aphthae occur
in this Fever.

In such Fevers, as there is a large quantity of the viscid, if mucus of the Tongue is dried thereby & forms a whitish crust; this adheres to the Tongue thro' the whole of the Disease, but towards the end wth the Inflammatory Diathesis goes off, this falls away & leaves behind it little Inflammation wth terminate in Exulcerations, these are called Aphthae: they are very troublesome in the end of Inflammatory Fevers; the Inflammation frequently spreads, runs down to the Stomach & even to the Intestines; occasions great difficulty of breathing, & sometimes destroys the Patient.

Prevention

As to the Prevention of this Disease, I shall only observe, y^t it may be avoided by guarding against the causes of Fever — but Persons in strong health who are liable to this Disease will hardly be persuaded to pay any regard to due Precautions.

Cure.

As the Danger here chiefly arises from the great action of the Arteries, & not from the violence of the Fever, Modest producing equable circulation will be but of little use; large Doses produce profuse sweats, but small Doses may be given, such as of Neutral Salts & Nitre, Saline Mixtures. — The great danger is from the Inflammatory Diathesis which is to be avoided by making evacuations from the blood vessels, & bowels.

Of the Inflammatory Fever.

By Bleed^g

Accordingly we bleed from a large Vein to a consid^{le} Quantity, but not so much as we woud do if there was a Topical Inflammⁿ: 12 or 14 Venas is sufficient at a time, & this Bleed^g is not to be repeated till if Action of $\frac{1}{2}$ Vessels is restored. there is but little danger for weakness in $\frac{1}{2}$ End of $\frac{1}{2}$ Disease.

Sedatives & Neutral Salts.

Acids may be apply'd as Sedatives, but we expect no great Advantage from $\frac{1}{2}$. The Neutral Salts as med^a produc^e equable Circulatⁿ. tho' in weak Habits $\frac{1}{2}$ may do mischief by increas^g of Weakness at $\frac{1}{2}$ End of $\frac{1}{2}$ Dis^e. tho' in strong Habits $\frac{1}{2}$ have but little effect, yet may be given at $\frac{1}{2}$ begin^g of $\frac{1}{2}$ Dis^e. as by $\frac{1}{2}$ relax^g Quality of $\frac{1}{2}$ may make more room for $\frac{1}{2}$ Blood to circulate

In $\frac{1}{2}$ mean time $\frac{1}{2}$ Belly is to be kept open by Laxatives, as we have nothing to fear from two or three Stools.

Blisters not safe

Some have apply'd Blisters at $\frac{1}{2}$ begin^g of Inflamm^y Fevers where there are no Topical Inflammⁿs, but this use is very uncertain, & may be very prejudicial; the only End $\frac{1}{2}$ can be an^d by $\frac{1}{2}$ is to take off $\frac{1}{2}$ Fever by rais^g an Inflammⁿ. But then we increase $\frac{1}{2}$ action of $\frac{1}{2}$ Vessels & thereby do a great deal of mischief — Many Persons have very im^p properly us'd $\frac{1}{2}$ to take off $\frac{1}{2}$ Delirium, but their applicatⁿ must greatly increase it. — In Topical Inflammⁿ Blisters are of some service.

If $\frac{1}{2}$ the Fever is gone, & if Inflamm^y Diathesis consid^{ly} subdued, & there sho^d app^r. some Symptoms of $\frac{1}{2}$ Blood verg^g too to Putrefaction, & a Delirium sho^d come on for want of Sleep, then Opⁱates may be given wth Advantage: But we are

Wth Opⁱates may be given.

to take care not to give $\frac{1}{2}$ too soon; for frequently by this means all $\frac{1}{2}$ symptoms of Inflamm^y Diathesis are brot on again — But if $\frac{1}{2}$ Diathesis is in any measure present, we must first try $\frac{1}{2}$ Antispasmodics such as Ether & Oleum Dulce, keep^g $\frac{1}{2}$ Pat^t quiet, if these are not successfull we may try Opⁱates. — But in such a Delirium Opⁱates must be given $\frac{1}{2}$ full dose, for if they don't procure sleep they always increase the Delirium; if sleep is obtain'd, if Pat^t is considerably refresh'd. — we are to take care $\frac{1}{2}$ of Opium is not to be apply'd, till $\frac{1}{2}$ Pat^t is considerably weaken'd.

Of the Inflammatory Fever,

*Aphae how
cured*

The *Aphae* in general are easily cured by *ap. applicat.* of some acid astringent substances, such as Tincture of Roses w^{ch} will remove y^m. — If y^m are not gone down y^e Throat, y^e Sack gon^{ly} cures y^m. — The other cases, relating to those *Aphae*, we shall cons^r more particularly hereafter.

*Symptoms of
weakness*

If the *Fever* should chance to *return* in a great degree on y^e 2^d week, on y^e symptoms of weakness sho^{ld} arise to a considerable height, y^e if Dis^e is to be treated in y^e same manner as we directed in y^e later end of *Quind* Fevers with Acids & Antispasmodics; but this is a case w^{ch} seldom happens.

The Food.

The Food thro^u y^e whole of this Dis^e sho^{ld} be such as will produce no increased action of y^e Antisies; water with some farinaceous subst^s dissolved, such as Barley water, Decoctions of Rice Acidulated, Decoctⁿ of Raisins &c are the best — The Pat^t needs no nourishment at first; we only use those subst^s to wash off y^e Neutral Salts & y^e putrid matter y^e is form^d in y^e Blood. — The Pat^t seldom comes to be so weaken^d as to stand in need of solid Food.

*After Quantity
of Drink*

It has been y^e Practice of late to throw in large Quantities of watery Fluids for y^e purpose of Dilution — It was on y^e contrary y^e custom formerly to allow Patients no Liquids for y^e first three Days — But it is not by any means necessary to throw in large quantities of Liquids, because only a certain portion of water can unite wth y^e Animal Fluids — Besides, by giving y^e Patient a large quantity of diluted Liquors you fill y^e vessels & thereby in some measure prevent y^e effects of your bleed^g — I have never seen any advantage gain^d by giv^g such large Quantities; we sho^{ld} chuse, neither to refuse a Patient, nor yet force him to drink more y^e he desires; in general, acidulat^d his Liquor takes off his thirst best; to give more, does not app^r necessary either from Reason or Experience — Not to give him drink is wrong, for Thirst acts as a stimulus & increases y^e action of y^e vessels. A small Quantity drunk at a time is better y^e to cause y^e Pat^t to swallow large Draughts.

Of Nervous Fever

Of the Low Nervous Fever

This is a Fever ^{Persons disposed to this Dis^e} which attacks Persons of weak Habits, & therefore where ^{of} Irritability of ^{the} Body is very great; so ^{of} Periods through out of whole Dis^e are often irregular & not well marked. — W^h a Fever attacks a strong Patient, gently ^{of} symptoms of ^{of} 2^d Stage are great & if Inflaming Fever is produced, such Persons are very seldom subject to ^{of} Nervous Fever we are now to describe. — It attacks People of ^{of} Sanguine Temperaments; or those weakened by any Food not sufficiently nourishing for their Excess by great evacuations, long continued use of stimuli &c. & generally breaks out in ^{of} Autumn, & is most frequent among those who are very poor; Childbed women or those ^{of} have been subject to long Purgings are frequently affected with it, & those who have weakened ^{of} y^{rs} by an habitual use of considerable quantities of Wine or Brandy, or who have continued ^{of} use of Mercurials for a long time. In short, if People are weakened by any cause w^hever, whether Grief, Anxiety &c. or even in Dist^e they are liable to this Disease.

Causes

This Fever may be produced by all ^{of} Causes of Fever; but it arises most commonly from Affections of ^{of} Mind & from Cold; but seldom from Putrid Vapours, w^h produces a violent Fever even in weak Habits, w^h generally cuts off such Patients in a very short time. — Anxiety generally produces a Low, nervous Fever especially where ^{of} Patient has been before weakened, as is particularly ^{of} case w^h Childbed women.

Cold frequently produces it particularly among ^{of} Poor in ^{of} Country who have not proper Food & sufficient Coverg to guard y^m against ^{of} Cold of Autumn, in such circumstances it frequently becomes Endemic.

This kind frequently attends other Dis^e; w^h Cold produces a Catarrh it is many times attended with a Fever of this kind: Dysenteries are also attended therewith, for it is seldom ^{of} w^h kind Fevers accompany those of ^{of} Inflaming kind: They generally become dangerous on acct^e of ^{of} weakness & Irritability with w^h they are attended towards ^{of} later end.

Of a Nervous Fever.

If Cold produces a Fever, there is a contraction of the Capillaries so that no Secretions can take place; if the Patient is strong it proves Inflammatory, if there is an Idiosyncrasy takes place, if Fever is carried off, but if Inflammatory Diathesis remains.

Distinction
Prognosis.

With Fevers decrease as the Body is then very weak & Irritable, if Fever becomes very irregular; now in this Fever with is accompanied with weakness & Irritability from the beginning, the Periods are very irregular throughout. The Typhoid Type frequently appears in the first week, & in the 2^d week it has no regularity to any Type at all. Slight returns of Cold Fit, with any apparent cause come on several times in the Day. Partial Secretions are very common, sometimes a large flow of Urine, & sometimes of saliva take place; the Urine is very various, sometimes clear, & sometimes thick with a laceritious Sediment; & this change is very frequent, so that if Fever is very irregular. — Except when the Patient is very weak he appears to be but in little danger in the beginning of the Disease, he complains of a slight Headach, & thirst; but if Heat is increased & if Pulse quickened to a small degree, & frequently does not apply for Relief till the Disease has gone thro' 5 or 6 Periods. — At every Exacerbation of the Disease becomes worse & attended with stronger symptoms of Irritability. — But this is not the case where the Patient is very weak, here if Pulse is very low & quick attended with partial sweats & Anxiety about the Praecordia. — The symptoms of Inflammatory Diathesis never appear at the beginning of this Disease if Action of the Vessels is not so great as to produce any appearance of Inflammation in the Blood when drawn from the Arm. Neither have we very violent symptoms of the first stage; neither is there any Delirium, & if Patient is considerably relieved in the morning. But symptoms of weakness & Irritability soon appear; the Pulse becomes very Quick so as to beat 150 strokes in a minute; Subcutaneous Tenderness take place

Of the Nervous Fever.

in all of Tendons; Delirium also comes on, not with symptoms of 1st or of the 2^d stage, but arising from Irritability; tis generally greatest in evening, but frequently not relieved thro' of whole of day. — Other symptoms of weakness also appear, if Pat^t lies on his back with his Arms extended; becomes incontinent the Urine & Faeces are voided with knowledge. — Another symptom w^{ch} indicates great danger is, if Patient is insensible of his Pain, if you ask him how he does, he tells you, very well; here if strength is so exhausted if Patient becomes insensible of pain. — Sometimes, a Crisis happens, but it comes later in this than in any other Dis^e: there are seldom such degrees of symptoms of 1st stage as to produce a Crisis before of 13th or 14th Day — if the Patient is supported with wine, he is wonderfully relieved, the Fever being weaker tho' tis sometimes 4 or 5 weeks before if Pat^t fully recovers. If the Pat^t is very weak ^{at 1st stage} then those symptoms if we have described as taking place at a later end of if Dis^e if Fever puts on a greater appearance of an Intermittent. In warm climates where Persons are much weakened, Remittent & Intermittent Fevers are much more common y^e with us; & where Persons in this country are weakened, if Disorder has soon if appearance of an Intermittent.

Prevention

For if Prevention of this Dis^e if Patient is to be strengthened, & if causes of Fever are to be avoided.

Cure.

By Med^l Prod^g
Equable Relief.

We proceed to if manner of Cure — At if first Attack of Fever may be easily carried off by an Emetic managed in if manner we have already directed, & succeeded by an Opiate; or small Doses of Antimonial given thro' of Day time very frequently carry it off; or even Neutral Salts joined with Stimulants & Diaphoretics sometimes prevent if Disorder from recurring in if evening. The most advantageous method is to apply those Med^l if produce equable Circulation, as has been prescribed in if violent Fever, giving Emetic Tartar with an Opiate, & giving three or four Doses at if time of if greatest Exacerbation; but tis weakens if Pat^t much if it does not cure

Of the Nervous Fever.

We have it seldom in our power to apply these med^s at 1st Attack Cog seldom called in till of 5th or 6th Day.

Blisters will
apply'd.

W^{ch} of Head comes to be considerably affected, a Blister laid to of Head or of Back may give consist^{le} relief; but if the Head is not affected, we must go on support^g of Strength with^l attempt^g to raise Inflammⁿ. — As soon as of weakness comes on, there is no Fever in w^{ch}. Blisters do more mischief, if Pulse is quicken'd, Delirium comes on together with subcutaneous Tenderness, while at of same time of do not support of Strength; therefore this of may be apply'd wth some advantage at of 3rd of of first or of begin^g of of 2^d week with some advantage; y^t at of 3rd of of 2^d week they are to be avoided as pernicious.

Med^s producing
circulatⁿ not given
in 2^d week

we cannot attempt to take off of Dis^e after of first week; for if we give med^s produ^g equal^{le} Circulatⁿ now they certainly destroy of Patient ~~and~~, for by relax^g of small vessels they cause of Blood to circulate in a large space, w^{ch} occasions of Patient so much of he falls into a Delirium & Dies.

Med^s destroy^g
Irritability

If there is no kind of Remission where we must not apply any med^s to destroy of Irritability, except it be Acid^s join'd wth Stimulants. — If there is any consist^{le} Remission, if of Tongue is moist be even tho' of Pulse is quick, we may administer of Bark in of day time wth Advantage; — we are not to expect immediate relief, but of symptoms become gradually slighter & at length are wholly remov'd.

We chuse to begin wth Infusions of of Bark, & then gradually to increase of Dose. If there is no Delirium, or only a slight one in of even^g, & consist^{le} Remissions in of Day, & ~~the~~ symptoms of of first Stage, of Bark may then be given wth Advantage.

Strength support^d
by Acid^s & Stimulants

In other respects of Strength must be supported with wine, wth Acids join'd wth. Stimulants, in of same manner as we directed in of Crabont Fever.

But we have further to observe, of as in this Fever of Irritability is of greatest, so all other Stimulants except wine are apt to quicken of Pulse, we must therefore be very cautious in administer^g ym, & frequently examine of Pulse, for it is a general Rule, of w^{ch} quicken^g of Pulse, increase of Disease?

Main

Of the Nervous Fever.

Laxatives & Glysters

Food.

Laxatives are only proper in ^{the} begin^g of this Dis^e, & then must not be of the Phlogistic kind; Rhubarb is of best, but it must be given in small quantities. Towards ^{the} end of ^{the} Dis^e we must be very careful how we give Laxatives, since one loose stool may destroy ^{the} Patient; we must only keep ^{the} Belly open by Glysters.

The Food requires from ^{the} begin^g to be nourish^g; & some Food if Stomach will bear sh^d be given. — It is an ancient Maximth y^t no Food will nourish in a deprav'd Stomach or w^e given in greater quantities y^t if Stomach will bear.

Animal Broths as well as vegetable Farinaceous Substances may be given. And especially where we can give a quantity of wine, it will greatly support the Patient — this is particularly remark^{ab}le in Persons y^t have this Fever after large Evacuations; here tis necessary to support ^{the} Pat^t by giv^g some salt^s to fill his Vessels. — Sometimes even Food may be given; ^{tho} seldom y^t Animal Food will agree wth ^{the} Stomach, tho' sometimes towards ^{the} end of the Dis^e it will. But Animal Broths frequently agree very well.

We must once more remark, y^t we have been describ^g of diff^t extremes of Fevers; & therefore you are not to expect these 3 kinds of Fevers in Practice as we have describ'd y^m; we are shew^g you of diff^t symptoms of which accord^g to ^{the} violence of ^{the} Dis^e or ^{the} strength or weakness of ^{the} Pat^t. — But you will find Fevers in every gradation, & hardly two Patients exactly alike. — Sometimes indeed you will find several cases nearly agree^g, as after ^{the} heat of summer you will find symptoms of great weakness prevail^g & hence we have Epidemic Fevers, w^{ch} have been describ'd by some as very numerous. — But of ^{the} Fevers y^t have been describ'd by various Authors, y^t greatest part are such as come betwⁿ ^{the} Inflammatory & ^{the} Nervous Fevers. — The Putrid Fevers have not been usually describ'd in ^{the} degree we have done — some have describ'd of Bilious Fever as approach^g nearly to ^{the} Nervous wth some symptoms of Inflammⁿ; they are call'd Bilious, bec^{ca} there is a greater secretion of Bile y^t usual; but there are mistakⁿ who suppose y^t this secretⁿ of Bile is ^{the} cause of the Fever, as well as those who think y^t a hot Blood is ^{the} cause of ^{the} Pleurisy.

Of Intermittent Fevers.

Of Intermittent Fevers.

causes

Intermittents are capable of being produced by all of Causes of Fever, but Cold is more productive of y^m. y^m. any other — Fear, Grief & Anxiety seldom act sufficiently powerful for this purpose. — Putrid vapours produce symptoms of an inaction of y^e nervous Power w^{ch} prevent the Hot Fit from being produced as strongly as it w^{ld} otherwise be; y^e weakness of y^e Muscles, together with y^e want of sensibility & irritability of y^e Heart & vessels from act^g so strongly as y^e otherwise w^{ld} do, so y^t this is seldom y^e cause of Intermitt^t. Cold then is y^e common Cause of this Fever, it produces a contraction of y^e Capillary Vessels rather than an inaction of y^e nervous Power — In all cases wherein Persons are exposed to cold, Intermitt^t are common: hence it is y^t they are Endemic in Marshy Countries, where there is a large quantity of water dissolved in the Air — Persons in such a situation ^{now} are liable to cold than in any other; for a quantity of water is raised by evaporation from y^e Earth & mechanically mix^d with y^e Air, on y^e application of this moist Air to y^e Body it acquires a power whereby y^e water is dissolved, & y^e generates a degree of cold w^{ch} produces y^e most violent effects on the Body. — The operations produc^g cold we shall speak particularly of w^h we come to treat of y^e Catarrh. — Intermitt^t are also more common in y^e Spring & Autumn than in y^e Middle of Summer or Winter, because there are then much greater variations of heat & cold in y^e Air y^t at any other time. — Heat & Cold are relative things, if a Person lives in 80 degrees of heat & goes into 70 degrees he will be affected with cold — Cold, therefore, is a diminution of y^e heat of y^e Atmosphere we are in; & as this diminution is very frequent in warm Countries, & y^e Body is there very susceptible this Disorder is very frequent there, tho it is commonly rather a Remittent y^e an Intermittent. w^h we observ^d with regard to Putrid vapours may be said w^{ch} regard to cold, tis not every Person y^t is exposed to cold y^t is affected therewith; some are more irritable y^m others, & some are less accustomed to it, hence new comers are generally seiz^d with Fevers.

Of Intermittent Fevers

Distinction &
Prognosis

Intermittent sometimes begin with distinct Periods, but most commonly ^{begin} like continued Fevers. — Sometimes if Patient is affected with a cold, w^{ch} is succeeded with a Hot Fit, & ^{then} a Crisis takes place: if the Crisis is perfect, it proves to be an Effluvia simplex; but in general if Crisis is not fully perfect; it leaves ^{perhaps} of it Tongue, Oppression of it Pleurodia, Pain in it Back & Languor. Very frequently it begins like a continued Fever, if Patient is affected with a cold Fit more or less violent, w^{ch} is succeeded with a Hot Fit, but no Crisis takes place; in it being there is a first exacerbation: Thus it continues till the end of it first week, w^{ch} a more violent exacerbation takes place w^{ch} brings on a Crisis, but this is imperfect: such Crises if happen soon in continued Fevers are very imperfect — a Relapse therefore takes place, & if Fever either continues or becomes an Intermittent. — Sometimes you may observe of Tertian Type appearing from it beginning, & then it is likely if Fever will break down to an Intermittent. — If it relaxations are very considerable every morning, then it is probable it may break down into an Intermittent; but without either of these two symptoms, we can't pronounce if a Fever will prove an Intermittent. — But there are not certain signs, for some Fevers assume of Tertian Type, & if beginning, & if relaxations are considerable & yet they do not prove Intermittent. — W^{ch} if Exacerbations are very great & attended with a relaxation of it capillaries, we have reason to expect if Fever will Intermitt, tho' we can't say w^{ch} if Crisis takes place whether it will be perfect or not. — In strong Habits & in it Spring Time there are symptoms of Inflam^y Diathesis w^{ch} sometimes arise, but they seldom do Mischief, as if contrariety of it Capels are great, & prevent it Blood for be^g thrown in too great quantities on it Head; tho' in Quotidians an Inflam^y Diathesis may arise w^{ch} may do Mischief; but if violence of it Fever & of it Inflam^y Diathesis do in some measure counteract each other.

Of Intermittent Fevers

In Intermittent Fevers, if symptoms of 1st stage are stronger, w^h if Inflam^y Diathesis takes place, but this renders if Hot Fit longer & more irregular; for if Arteries on if Skin & Head thro' if Blood out in greater quantities if if internal Ones; this brings on sweat & abt. if Head & Body. But if internal Capillaries are not highly relax^d — this commonly if case if if Fever does not break down to an Intermittent till if Inflam^y Diathesis is gone.

As if violence of if Fever goes off, if Fits become more & more distinct, till if Pat^t becomes quite free of if Dis^e; if Tongue becomes clean, if Urine thick & if Skin moist &c. At this time if Periods are most violent both in if symptoms of if 1st & 2^d stage. — From repeated Fits of Pat^t is render^d weaker & symptoms of Irritability appear, w^h cause Tertians & Quartans to redouble, the Fits become weaker, if crisis if comes on if intermediate Days is never so perfect as those which happen on if proper days. — The Fits become more & more irregular, so if if Pat^t is never wholly free from if Disease, & if left to itself sometimes destroys if Patient, or terminates in Dropsy, &c. or else if Dis^e goes off & leaves if Patient.

It happens sometimes in Intermitt^t as well as in continual Fevers, if if Dis^e is entirely remov^d on the first perfect Crisis, but this is seldom if Case.

Danger of if Dis^e.

Intermitt^t destroy as well as continued Fevers; sometimes by if violence of if Inflam^y Diathesis, but this is not frequent; sometimes also if Pat^t is destroy^d by if strength of if Fever, w^h this is if case, he dies in if cold Fit, but this is not frequent; his weakness if generally cuts off if Patient, & this in two ways, it renders if Patient unable to bear if repeated attacks of if Fever, & it brings on those symptoms of weakness w^h frequently terminate in Dropsy, & other Diseases produced by weakness, this last is if usual method in which many are destroy^d especially in Autumnal Intermitt^t, — sometimes if cold of if Winter has destroy^d if Patient.

Of Intermittent Fevers

Weakness produced
not easily repaired

In weak Persons
it frequently proves fatal

In weak Persons
it is attended with a large
quantity of Bile secreted

This weakness is not only great, but recovered with great difficulty; & we come to speak of the means of strengthening a Patient we shall show you, y^t when a Patient is gradually weaken'd, tis difficult to restore him. & this is y^e case here. Very frequently Persons are weak at y^e first attack of an Intermitt^t, & these are in great danger. If a Fever y^e in a strong Patient would prove an Intermitt^t in a weak Patient frequently proves a Remittent; the 2^d Period comes on before y^e first Period is quite over, & as y^e Patient is weaken'd by every Fit the Periods become less & less distinct. This is generally y^e case in warm Countries where y^e Patients are weak & irritable, their Fevers are generally Remittents, but y^e become less & less so, till by y^e great symptoms of irascibility the Patient is cut off.

We have observ'd, y^t in y^e first stage of Fever y^e whole of y^e Capillaries are w^ond by Contracted, & thereby a large quantity of Blood is thrown into y^e Præcoecæ & Viscera; the consequence of w^h is, y^t those Viscera swell; y^e Liver particularly w^h has large vessels, & those not very strong ones, together w^h the Spleen will considerably; these frequently arise therefore consid^l swells in y^e Abdominal Viscera. — If the Habit is weak & a quantity of Blood is thrown on y^e secondary Vessels of y^e Liver a much greater quantity of Bile is form'd; hence Intermitt^t Fevers happen'g to weak Persons are frequently call'd Bilious Fevers, blood taken away in this case, provided there is no structure on y^e Ductus Colledochus discovers no sign of Bile contain'd therein. — We know y^t y^e larger glands of Fluid then is thrown on any Gland, the larger y^e secretion then is made by y^e Gland; thus, if y^e Blood is thrown upon y^e Intestines, by external Cold a Purg^y Issues; so if y^e Glands of y^e mouth are stimulated, a greater quantity of saliva flows. — Now y^e Bile w^h thus largely secreted is not y^e cause of the Fever but its effect.

Of Intermittent Fevers

We have observ'd ⁱⁿ among other symptoms, if Blood in Intestines is thrown in considerable quantities to ^{the} Intestines, w^{ch} may occasion spasmodic Contractions & Inflammⁿ of ^{the} Intestines; w^{ch} if Ductus Choleochus is thus affected, if Bile reposit^d into ^{the} Blood & a Jaundice is form'd, especially as there is such a quantity of bile form'd. — This Bile mix'd wth ^{the} Blood does prevent ^{the} Intermissions begⁿ as usual as they w^d otherwise be; it acts as a Stimulus on ^{the} whole Body, & prevents ^{the} Fever from go^g thro' all its Stages, & thereby prevents a Crisis.

Prevention For ^{the} Prevention of this Fever we are to guard against ^{the} Causes of Fever in gen^l & particularly against Cold; how this is done we shall take particular Notice of wⁿ we come to treat of Catarrh.

Cure

We come now to ^{the} Cure of ^{the} Disease. — The first thing we are to attempt is, to get a perfect Intermission if possible; for this purpose, all ^{the} Causes of Fever are to be avoided as much as possible, particularly one Cause, w^{ch} is frequently apply'd, Mucus, Putrid Substances or an Acid in ^{the} Stomach, or Ferres in ^{the} Intestines.

We therefore guard in ^{the} begin^g an Emetic consist^g of Emetic Tartar & Specuanda afterwards, a gentle Laxative so as to clear ^{the} Stomach & Intestines; What next is ^{the} best Purgative, & preferable to ^{the} Neutral salts & ^{the} Stimulat^g Purgatives for ^{the} Reasons already given; tis not like ^{the} Neutral salts liable to act only on ^{the} Intestines, nor is it apt to stimulate ^{the} system like ^{the} other Purgatives.

— Then a perfect Intermission may be attempt'd to be obtain'd by giving small Doses of ^{the} Neutral salts. — Perfect Intermissions are frequently prevented from tak^g place by ^{the} strong Action of ^{the} Metecies, whereby ^{the} Period is prolong'd so ^{that} if 2^d Period comes on before ^{the} first goes off: the Arteries of ^{the} Skin & Head also act ^g stronger ^{than} those of ^{the} rest of ^{the} Body — when therefore there is a considerable hardness in ^{the} Pulse tis necessary to take away abt. 10 ounces of Blood; tis seldom however if ^{the} Pat^t is in danger of begⁿ destroy'd by

*Spasmodic Contractions
in ^{the} Intestines*

Prevention

*A clear Intermission
is obtain'd,
By an Emetic
& gentle Laxative*

Sometimes by Blood

Of Intermittent Fevers

if too strong action of the vessels, if there sh^d, we must treat the Fever as if it was of an Inflammatory kind.

Sometimes by procuring perfect Intermissions, we cure of Fever with^o any further Application; or only one more Fit recurs; this takes place much more certainly if we use those Remedies wh^{ch} produce Equable Circulat^o & give up^o so as not to omit much, by this means we frequently obtain a perfect Crisis & Cure of Fever. — This happens more commonly in Quotidian & Tertian f^o happens in Spring, than in those wh^{ch} take place in Autumn — This is also most effectually obtain'd by giving those Med^o in hot Fit

In Bark is given & den^o of Intermissions. — Wh^o an Intermission is obtain'd, if Bark is to be administer'd. — There has been great inaccuracy in administrat^o of Bark

— In order to understand of manner in wh^{ch} it must be given, we ought to consider of Effects of Bark in others as well as in this Disease
In first place, If the Intermission is perfect, if Bark cures of Disease, but if it is not perfect it will not perform a Cure; if it is given at any time of Period, it will not certainly cure, but if Period is prolong'd, & if Patient is thrown into a Continual Fever; it therefore only prevents of Fit from recurring, & does not of itself cure of Disease. — It is of same in all Recurring

Diseases, Bark given in any Intermission does prevent of Fit from recurring, if a Person is expos'd to any of causes of any Disease, if Bark does prevent of Fit from Act^g, & therefore prevents of recurring of any Fit.

We shall understand this better, if we observe, if many Dis^o are produced not by any change in any Blood or Fluids, but by a change in Irritability of the Body; thus spasmodic Contractions are produced by an increase of the Irritability, wh^{ch} are taken off by any Bark, wh^{ch} has of peculiar effect of destroying this Irritability, how it does this, we don't know — But we are certain of the Irritability may be greatly increas'd or lessen'd, & if Bark does destroy it

By Drink. produce
Equable Circulat^o

Contra of
Bark comes?

No specific virtue
But cures by preventing
of recurring of any Disease

This done by
destroying of Irritability

Of Intermittent Fevers

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Where of Periods of of Fever are render'd irregular by of increase of of Severity the Bark given in the Intermision, will render those Fits regular.

I never saw a single Instance of an Intermitt^t. where of Intermision was perfect, & where an Ounce of of Bark was given during of Intermision, so as to sit on of Stomach, but w^t. of Dist^t was cur'd; either there were no symptoms at all, or two or three slight symptoms came on, & on of fresh Administration of of Bark, of Dist^t was quite cur'd — But I have seen Instances wherein of Bark was given, where of Intermision was not clear, of Symptoms of of yet remain'd still continued, & w^t. of time recurr'd bro't on of Fever.

We may therefore lay this down as a Rule, "That w^t. ever we have a full Intermision of of Bark will certainly cure of Disease."

Further, we may observe, in all Dist^t of Weakness where of Pat^t is very Irritable where Causes of of produce no alteration in strong Habits produce a considerable alteration in him, of of Bark takes off this Disposition; thus in of end of Intermitt^t Fevers happen'g to weak Persons or to those in hot Climate, Bark has been exhibited so as to take off of Fever where of Crisis was not perfectly form'd, & there was only a Remission — Now of effects of of Bark in such a Case is, not to prevent of recovery of of next Fit, but it brings on a more violent one & in consequence thereof a perfect Intermision, & on of next Administration of it, of Dist^t is wholly cur'd — here of Effects of of Bark are totally different from its effects in of first application thereof. — We further know, of in weak & Irritable Persons there is seldom so strong a Fit as to produce a clear Intermision.

If a Fever has been an Intermittent & suffer'd to go on thro' many Periods, till of Patient becomes very weak & Irritable, of Dist^t at length becomes less distinct in its crises, & ends in a continued Fever: if we give of Bark in this case, it takes off of Irritability & strengthens, & produces a more perfect & regular Fit of of Dist^t & a regular Intermitt^t takes place, or at least

Of Intermitent Fevers

so much as we have time to throw in of Bark so as to prevent of Fever from recurring; but its effects are not near so certain as in other cases — I have ^{observed} it frequently administered so as to do no good; I have seen it administered in imperfect Intermissions in strong Habits, & its most constant effects were to retain of symptoms of of Fever & to prolong of Fit. We may lay down this as a Rule, That in strong Habits it is not to be given But when there are clear Intermissions, but where of Body is very frail, it may be given in Remissions. — If of Patient is strong we are to bring on an Intermission by Vomits, Purges, & Meds. producing equal Circulation; & when of Intermission is obtain'd, when of Urine deposits a copious Sediment, of Skin is moist, of Tongue Clean, we may always give of Bark with great safety.

Quantity to be given

As to of quant. to be exhibited, it ought to be considerable; Six Drams is at least we can give betw. two Paroxysms — Smaller Doses will sometimes cure but by giving small Doses we run a risque of losing its effects — If you once give it with a perfect Intermission or in too small quantities, tis frequently 3 or 4 Months before it can regain its effects on of System — We ought therefore to give it in a considerable quantity at a time. — Tis best to exhibit it (unless there is an Inflam. Diathesis which must be first got under) with some Stimulus, such as Wine or of Spices; for if it produces vomitg or Purgeg its effects are lost; for of effects of all Meds. are lost as soon as of become Stimuli, & prove either Emelic or Purgative; tis therefore necessary to join it with some such substance.

or how

The Time in which it is to be taken must be in proportion to of distance betw. of Fits — If it is a Quotidian, we must give of Bark more frequently than in a Tertian or Quartan Intermitt. — There is more advantage to give it in large Doses & at long Intervals than in small Doses & short Intervals,

Of Intermittent Fevers

for it is best for if first Dose to have its full effects before 2^d is taken. Some will take two Drams at a Dose, & then if whole will be taken in four Doses — But if Quantity shod be proportion'd to if Irritability of if Patient, if we suspect if Body is very irritable, it will be best to begin with small Doses.

If it Purges we must give Opium along with it, the Opium is best given at if Intervals & one dose is to be taken as soon as if effects of if former are over, & that not in too large quantities — 8 or 10 Drops will be sufficient for 6 or 8 Hours.

By giving if Bark in such large Quantities you seldom find if Fever recur; but if by giving too small Doses a Fit comes on, it will be necessary to omit if exhibition of it till if next Interval, & then we are to renew if Doses as before to prevent if return of if Fit. — In the mean time we are to guard against if Tauus by accumulated in if Intestines, & for if purpose we may give some gentle Purgative, tho' we are to guard against much purging as if will bring on if Fit.

There is one thing further to remark, w^{ch} is, if it frequently happens, if if Prevention of a single Fit is not sufficient to cure if Dis^e, it may recur again in 3 or 4 Days. — On observing these causes accurately we may observe, if some few symptoms have appear'd at if time w^{ch} if Period was to have taken place, if we leave off if Bark, these symptoms become stronger & stronger at if time of every Period so as at length to bring on if Fit. — w^{ch} a fresh exhibition therefore of if Bark if Dis^e may frequently recur; the Bark is therefore to be continu'd for some time. — I don't know if there is an absolute necessity to omit if Bark at those seasons w^{ch} if Periods ought to have come on, but I shod rather chuse to do so unless it be in Quotidians.

- the purg^g 10be
prevents.

but if Belly not
to continue long

The cause of the
Fits recurring

Of Intermittent Fevers

It is best to continue of Bark for two or three Periods after if Fever is gone, in of same Dose, as at first; we then chose to leave off of Bark for 7 or 8 Days, & then repeat of same quantity as was first given; at of end of 6 or 8 Days more we renew of quantity of 6 or 8 Grains — W^{ch} the Fever was treated in this manner, I never knew an Instance of its recurring. — tho' I have known Instances where tho' the Bark was taken in such quantity as to prevent 5 or 6 Fits & afterwards taken only in of quantity of a Dram or two every Day, yet it ^{soon} has recurred, if Bark loses its effects; we therefore prefer the former Method.

Of Dropsical Symptoms
caused by Intermittent

It frequently happens, of when if Patient has been greatly weakened by an Intermittent, if Dropsical Symptoms arise, & these Symptoms have taken place after if Dis^e is cur'd by if use of if Bark. — It has been said, of if Bark has produc'd these Symptoms. — It is true, these Symptoms have arisen after if use of if Bark, & it is as true, that these w^{ou}d have taken place if if Bark had never been given & if Dis^e cur'd any other way. — I never knew these Dropsical swell^{gs} take place in any strong Habits. — Bark has been couc'd to increase of swell^g of if Liver & Spleen, & some of if Sympathetic vessels, or to render those swell^{gs} caus'd by if Fever more obstinate. But it is certain these are not caus'd by if Bark, for they take place bef^e if Bark was given & are caus'd by if Fever; they never take place at if begin^g but at if later end of if Fever w^{ch} if vessels are render'd very lax & there is a disposition in if Part, to swell; it is certain if if Bark is soon given it will prevent of Excess from tak^g place.

Of Symptoms of
Jaundice

W^{ch} there are any contractions of if Ductus Cholydochus, the Bile is forc'd into the Blood, & Intermittents are render'd more imperfect thereby; But provided we can obtain a perfect Intermission we can always give of Bark, whether there is any Bile in if Blood vessels or not; Symptoms of if Jaundice are no obstruction to if Administration of if Bark.

Of Intermittent Fevers

I have now shown you of manner of exhibiting this Med^e when of Patient is considerably strong. I now come to of exhibition of it to weak Persons.

How to obtain it:
Intermittent in weak

If an Intermittent attacks a Pat^t who is very weak & irritable, & if in consequence thereof of Intermittents are becoming less & less perfect, we must not wait for a clear Intermittent, but do of best we can. — We are at of beginning of of Hot Fit to give Emetic Tartar with a little Specuana so as to purge of Patient a little; by this means we shall obtain a better Remission of we should otherwise have; — we are then to give of Bark during of Remission, but not in of quantity already described, half an Ounce will be sufficient to be given between of Periods; this brings on a more violent Fit, with wider of Intermittent clear, & then the Bark may be given in its full quantity.

But this is not near so certain a method of Cure, as when of Intermittent is complete. — If the Bark has been imprudently administered, so as to produce a continued Fever, or a less perfect Crisis, or given in too small quantities; in this case we must leave of Patient alone for 4 or 5 Fits; we are then to begin of Cure by clearing of Primæviæ, & then give Med^e producing equable Circulation & after of Intermittent becomes clear, we may administer of Bark, but never with so much certainty as at first.

To prevent of Dis-
for recurring of Intermittent
of Fever becoming

Having got rid of of Dis^e, we must be careful to avoid of causes of Fever for of future, for of Habit contracted will dispose of Dis^e to return on slight causes. These causes are, fresh Cold Taken, Indigestible Food taken into of Stomach, particularly such as produce a viscid solution, such as Fish & the flesh of young Animals. — It is particularly remarkable, of the Dis^e is more apt to be reproduced at of New & full Moon of any other time particularly in warm climates; Care must at of time be particularly taken.

Of Intermittent Fevers

By long by
Applicⁿ of Salts of
Iron, Copper &c.

By counteract^g
of cold Fit

we may just take notice of some other methods of curing of Disease, if it be by
Applicⁿ of of Salts of Iron & Copper, of Bark of some Trees, together with other
Med^s will act on of same Principle with of Bark.

Another means is by counteract^g of cold Fit at of time of its accession, & thereby
break thro' of habit contracted; if we can prevent one or two Fits in this manner
we cure of Dis^e - this is done by Med^s of counteract of cold Fit by relax^g of
small vessels & produce a stimulus; Rhuic Taster join'd with an opiate are of use.

— these are to be taken just as if Fit is coming on. — This method is never to be
employ'd where there is a considerable degree of Inflamm^y Diathesis, for of
applicatⁿ of such stimuli do frequently much mischief; neither is it so properly
applic'd in cases where there is great irritability; but in other cases of Dis^e has been
frequently cur'd hereby — we are to give this Med^s at an hour before the Fit
is expected, if Pat^t sh^d go to bed, where he generally falls into a sweat, & finds relief
of of symptoms of of first stage, or at least very slight ones — there is this advantage
attend^g this method, if we hereby obtain perfect Intermissions w^o other Methods
have fail'd — sometimes there is no Fit at all & of Patient is perfectly cur'd tho'
no other Med^s is exhibit'd; or if a slight Fit comes on by of 2^d application of the
Med^s is remov'd; however tis best to exhibit of Bark or other Bitter Med^s to prevent
it from recur^g. — There is but little danger if we exhibit Antimonial Med^s
along with of stimuli; but of stimuli given alone, do frequently produce violent
Inflamm^y symptoms — This method is very proper when the Bark has been
already administer'd improperly or unsuccessfully.
W^o the Disease is cur'd, or if Fits become slight & Irregular, if Patient is
to be strengthen'd accord^g to of method with we shall prescribe w^o we come
to treat of of Intermittent Disease.

Of Erysipelas & Phlegmon.

Of Particular Inflammations.

We come now to treat of Particular Inflammations, I don't propose to treat of all of variety of Inflammations which happen on the surface of the skin or extremities of the Body, we have a great variety of symptoms & many of which take rise from the situation of these Inflammations; my intention at present is to point out the general Distinctions of these External Inflammations of the skin itself & of Parts under it, as they arise from different Causes, & are attended with different symptoms, & then leave it to yourselves to apply what has been said to particular Cases.

Phlegmon & Erysipelas distinguished

These Inflammations which affect the cellular Membrane, have been distinguished by the name of Phlegmon; but when their seat is properly in the skin, they are called Erysipelas. These two kinds of Inflammation are not at all times distinct, but frequently intermingle with each other; the frequently an Inflammation takes place in the cellular Membrane, particularly in the extremities without any effect on the skin, & many times an Erysipelatous has no effects on the parts below it. Some Authors have divided these Inflammations into a great number of species, according to the degree in which Phlegmon has been mixed with Erysipelas.

One would imagine, if an Inflammation of the skin itself would be much more common, if it were of the cellular Membrane, as it is much more sensible & exposed to such a variety of External Injuries; However the Parts Beneath are exposed to a number of Causes of Inflammation, & therefore very liable to Inflammation especially if an Inflammatory Diathesis is present; they are liable to Distention from Fracture, Luxation & Bruises which act powerfully as the cause of Inflammation.

Phlegmon in Edemas.

When any Substance pierces thro' the skin, it becomes inflamed together with the Parts below it, so if where the wound is very small a Phlegmon is produced.

A Phlegmon is sometimes also produced by an over-exertion of any muscle; first a considerable Pain, & then an Inflammation is produced. Thus, after walking

Of Phlegmon & Erysipelas

wherein considerable exertion has been made of muscles, an Inflamⁿ has taken place in Leg or Thigh.

Some particular Parts are liable to particular Causes of Inflamⁿ; of Ligaments of

of Joints are liable to great distention in consequence of Luxation.

It sometimes happens also of in 1st or 2^d Sort of Fever of an Inflamⁿ is produced in of external Parts; this is owing to some slight cause w^{ch} w^d not have taken place if an Inflamⁿ of Diathesis had not been present.

Besides these, there are a number of subst^s of an apply^d to of skin, which will affect of Parts below it with Inflamⁿ; thus Mustard seed & other external stimuli apply^d to of skin will frequently produce a Phlegmon — Other kinds of External Stimuli, such as Cantharides, affect the skin only & produce no Erysipelas.

— We are not acquainted with of Peculiarities of diff^t Stimuli where by some affect of skin only, & others of Parts below it; but this has been observed, of those Stimuli whose effects soon go off are more liable to affect of skin alone; whereas those whose Stimuli continue to act for some time are more liable to affect the Parts below of skin, than even of skin itself — Thus we find, of Cantharides, Volatile Alkali & all of Siliacea whose stimuli act quickly are more liable to affect of skin only; whereas all of Resinous subst^s are liable to produce Phlegmons.

Besides, in strong Habits Phlegmons are more apt to be produced, but Erysipelas prevails more in weak Habits — the reason is, of a Stimulus applied to a weak Habit only produces a greater action of of Vessels in of more sensible Parts, whereas in stronger Habits of Vessels act with a greater force in all of surrounding Parts — Therefore in Fevers where of Patient is weak we have only an Erysipelas produced, whereas other kinds of Inflamⁿ are more common in other Habits.

And as these two Inflamⁿ differ frequently in their Causes, so of do in their Progress. If there is an Inflamⁿ in of cellular Membrane, there is always a quantity of Blood extravasated, there arises a Swelling in consequence of of Blood thrown out.

most common in
strong Habits

Progress is
Distinction

Of Phlegmon & Erysipelas

the Tumor is more circumscrib'd up in Erysipelas because if blood does not run into it surroundg Parts, hence if Part swells in a circular Form.

But in Erysipelas there is no such regular swelling, it is not so great, & there is a mixture of inflamd & uninflam'd Parts. — An Erysipelas also frequently continues for a considerable length of time with^t suppuration or decays; this is of case particularly wth Chilblains; but Phlegmons suppurate soon if they are not carried off by resolution — In Phlegmons there is a quantity of Pus form'd; thus, if a Lymphatic Gland is inflam'd there is a quantity of Pus soon form'd there, tho' it is a great while before it whole may be chang'd into Pus. — Hence it is, if an Erysipelas frequently goes off with^t any Deciduation, wth is not of case with Phlegmon when it has been of any continuance.

Erysipelas are very liable to Gangrene, because if Inflammⁿ takes place in a Part when there is not room for it to spread to distend, whereas if Cellular Membrane is easily distended — The skin is also more sensible, & therefore if Inflammⁿ will run highest there. — In some cases indeed, a Mortification may take place in consequence of it weakness of it Patient, as is of case in Wounds, attend'd with great loss of Blood.

When an Erysipelas ends in suppuration it is always in consequence of a quantity of Fluids thrown between it two skins whereby it sear skin is rais'd up, wth is of case in a Blister; but these Fluids are compos'd not of Pus but of it watery part of it Blood wth some small quantity of it Coagulable Lymph & Serum — This Coagulable Lymph sometimes congeals & forms a jelly; there is a quantity of Serum contain'd therein, for on it applicatⁿ of Alcohol it coagulates; there is contain'd also a quantity of Mucous salts wth Stimulate the Surface & keep up the Inflammⁿ.

Of Erysipelas & Phlegmon.

It sometimes happens if the whole of these Fluids are absorb'd, then the scalp skin dries, falls off & a new skin is form'd, & if Inflammⁿ is cur'd; but if the Inflammⁿ be more violent, if Neutral salts stimulate the skin, so that there is a considerable retraction ~~is~~ form'd, and at length an Ulceration takes place; but this is form'd very differently from what it is in Phlegmon.

When an Abscess is open'd, if it has been lately form'd, commonly there is a quantity of Granulatus Flesh soon generated, whereby if Ulcer is soon fill'd up, & if Ulcer is not painful unless it is exposed to the Air; but where there is any Stimulat^g substance contain'd in the Ulcer, such as Venereal matter, it causes the Ulcer to spread. — On the other hand, in an Erysipelas wherever there is an Ulcer form'd, as if skin is extremely sensible, a quantity of Neutral salts are thrown out, whereby it becomes very painful till it kills the skin & it spreads for some time before the Ulcer can be heal'd; this is particularly of Case in Quens — We shall not enter into the consideration of the variety of Ulcers if are form'd in the skin, if beg^d of business of Surgery.

Phlegmon's
their Cure

Now as these external Inflammⁿs are in different diff^s, so they require a very diff^t Treatment. — Phlegmons are much more commonly attended with Inflamm^y Diathesis than an Erysipelas is —

by Bleed^g.

It is always a Rule, if where there is an Inflamm^y Diathesis, bleed^g is of service. Bleed^g for the system in gen^l may be practiced before the 3^d Day; but where a particular Part is affected, bleed^g is more usefull for the Part itself.

in some cases
by Sedatives

Bleed^g is of much greater service in Phlegmons than in Erysipelas; we frequently bleed to the quantity of 15 or 20 Ounces. — In Phlegmons we can very seldom apply Sedatives unless it be at the begin^g of the Inflammⁿ in very deep parts. — In these cases we can apply it to advantage, as in Fractures & Inflammⁿs of the eyelids; but where Phlegmon is rais'd so as to destroy the skin & under it

Of Erysipelas & Phlegmon,

Shining, we cannot use y^m with^t of danger of producing a Gangrene — Some indeed have apply'd very powerfull Positives, such as Salts of Lead & have cur'd y^e Inflammⁿ thereby, but with y^e almost hazard of producing a Modification. — W^h Positives are employ'd they sh^d be such as have but little Astringency, at y^e same time we use Warm Water & Oil to take off the Pusure on y^e Surround^g parts.

Pulices &
Fomentations

Pulices & Fomentations have been always employ'd in Inflammations, they have been usually compos'd of y^e Farinaceous seeds mix'd with Water & Oil, & sometimes with Herbs, Water & Express'd Oil — but there is a very considerable difference in y^e Applicatⁿ of Pulices & Fomentations; some of y^e Farinaceous Subst^s are more Astringent & Sedative y^m others; thus Oatmeal is more so y^m Flour; for this reason, we w^d not apply Oatmeal where y^e skin is considerably distended, for if you make this application you will find y^e Part is more shrivell'd y^m it was before, & y^e inflam'd Parts appear to be more compress'd. All y^e Farinaceous seeds have something of Astringency in y^m, & therefore y^m have a tendency to increase y^e Inflammⁿ, & to bring it to a suppuration; but y^e Herbs, such as Chamomile Flowers, Wormwood & Lilly root, have not this effect, & therefore may be us'd with Advantage — besides, these contain a peculiar Sedative Power wh^{ch} takes off y^e Inflammⁿ; and upon trial made, we find y^e Motherwort & Briony root have taken off y^e Inflammⁿ sooner y^m other Herbs have done.

With regard to Express'd Oils y^e have been us'd in Pulices; I can see no reason why Linseed Oil sh^d have y^e preference of any other, since it contains a quantity of an Visceral Oil & therefore is more liable to stimulate y^m many others, it will not become so soon Rancid as many others; but we can easily avoid the Rancidity of y^e Oil by chang^g our Pulices frequently.

Of Erysipelas & Phlegmon.

It is better to use Oil of. is fluid in of Heat of of Body of. of. is fluid in of heat of of Atmosphere; because if later may become too fluid in of heat of of Body & thereby become liable to run off. Butter, Hoglard &c. are therefore preferable to Oils of Olive & Linseed.

Blood from part affected
Phlegmons w^{ch} they can't be ^{removed} by bleedg from of system in general, if the Inflam^y Diathesis is reduced may be greatly relieved by bleedg from of Part Affected. — This is not always practicable; but we may apply Leeches to of Part wth Advantage. — But it must be observed y^t there are some Leeches of. contain a poisonous Juice w^{ch} greatly increases the Inflam^y; but as these are seldom met with we must run of hazard of it.

Bleedg from of Arteries or Veins of of part may be done wth considerable propriety where it is practicable; but this many times cannot be done; thus in an Inflam^y of of Hand, if we take off any Blood we must tie up of Arm by w^{ch} means we distend of Part & do more mischief y^t bleedg will do it good; this is not to be practiced therefore unless we can compress one Vein & thereby raise it so as to take off a quantity of blood. — Opening of an Artery will not be attended wth this disadvantage, & is of great service where it can be done wth safety; thus Opening of of Temporal Artery has been of great service in an Inflam^y of of Eyes.

Scarification is another method of takg away Blood, but this will not ans^r in of case of Phlegmons, because if Wounds of. are made act as Stimuli & increase of Inflam^y; but sometimes cutg into of cellular Membrane & discharging of Blood from there has greatly diminished of Phlegmon.

Purgings

Evacuation of of Vessels by Purgings is extremely Advantageous here; it does not only empty of Vessels of a quanty of their Fluids, but it particularly supplies of External Vessels & causes a flow of their Fluids towards of Intestines, for this purpose these Purgings of. Stimulate least & w^{ch} are called Antiphlogistica such as neutral salts & Oils w^{ch} bear

Of Erysipelas & Phlegmon

They must be given in large Doses so as to purge violently. — provided we use these Methods in proper time Phlegmons may be easily removed off; But these Methods must be apply'd early or they will signify nothing, for Phlegmons begin to suppurate in two days — If you bleed a little & purge slightly Phlegmons commonly go on to suppurate; hence it is, if Phlegmons commonly do suppurate. Indeed suppuratⁿ happening are seldom of any consequence, unless when they are near a Joint or lie deep in of Muscles. — We have already explain'd of manner of manag^g Abscesses after if Pus is form'd & it is therefore needless to observe any thing further unless it be, of the best way of manag^g those Abscesses after if Pus is let out is, to trust wholly to Nature, keep if Pus clean & dry dry Lint apply'd to if Port will cure much sooner of any other application

Cure of
Erysipelas

In Erysipelas if treatment is considerably different, as if progress of if Disease is different. — Inflam^y Diathesis does not so certainly take place here, & therefore bleed^g is not so very efficacious. — Erysipelas frequently comes on at if begin^g of a Fever & when there is but little Inflam^y Diathesis; in if case, we don't attempt to take it off, only keep if skin soft & prevent it from being stimulated; for if we carry off if Inflamⁿ, if Fever recurs to greater violence, whereas while it continues, it serves to relieve if Fever; w^h if Fever is removed, if we are by all means to carry off if Inflamⁿ.

Bleed^g is less useful in those Erysipelases w^h arise from external Stimuli than those Stimuli if arise fr^m an Inflam^y Diathesis, as in Fevers.

Sedatives

If bleed^g is less efficacious, here if in Phlegmons, ^{useful} Sedatives are much more so if if Erysipelas is not risen to a great height it may be cur'd thereby. The most powerful Sedatives may be us'd, such as Alcohol, to great Advantage, Acids are too apt to stimulate, but if Fermentaceous seeds such as oatmeal may be of considerable service

Of Erysipelas & Phlegmon

W^h we want to prevent Erysipelas from going to a great height, we apply Alcohol diluted with a Decoction of Herbs already mentioned. Alcohol if apply'd by itself in Burns will prevent gr^opus Blister. Or w^h a Blister is rais'd by any external Stimulus, Alcohol is of service to ease of pain & cure of Inflamⁿ. — But where there are internal Stimuli and an Inflamⁿ Diathesis present, tis best to take away a quantity of Blood before we apply Sedatives, which sh^d not even be employ'd till the Inflamⁿ Diathesis was removed.

of its Metastasis

All kinds of Inflamⁿ are liable to Metastasis, i.e. an Inflamⁿ arising in another Part will take off of former; this is remarkably of case in Erysipelas if we apply any Stimulat^g substances to a different part of Body & Erysipelas will be removed. — If there is an Inflamⁿ Diathesis, a slight Stimulus apply'd may probably produce this Inflamⁿ w^h w^d not otherwise take place; whereas, where there is no Inflamⁿ Diathesis, one Inflamⁿ will be of means of preventing of rais^g of a secondary one. — Where an Inflamⁿ Diathesis prevails, other Inflamⁿ ~~are~~ are of gr^o loci apt to arise in diff^t Parts of Body. — Before we apply Sedatives, it is necessary to take off of Inflamⁿ Diathesis; w^h Blisters are once rais'd, Sedatives are of no Advantage.

by Purgatives Purgatives are of consid^{ble} use here as well as in Phlegmons, but not so much wanted as in other Case.

W^hen there arises a Blister on surface of Skⁿ, if Neutral Salts stimulate Skⁿ & keep up of Inflamⁿ, & tend to bring on a Gangrene. —

Bark

As soon as Blister arise, if Inflamⁿ Diathesis is taken off, then we give of Bark to destroy of Effects of Indiscreet; this is still of more Advantage if there is great Pain, & many times prevents Exulcerations.

Of the Phrenitis

I have seen some very large Burns cur'd with^{out} any suppuration at all.
A Woman had a quantity of boiling Oil thrown upon her Arm so as to cover a large part of it. Alcohol was apply'd, & in some measure stop'd of Inflammⁿ but not so far as to prevent Blisters from arising; on the applicatⁿ of y^e Bark there was no ulcerate form'd, but a quantity of Pus appear'd on the surface of y^e Skin, & y^e Burn was soon cur'd. — For this purpose tis necessary to exhibit y^e Bark in large quantities, at least an Ounce in 24 Hours.
Sometimes tis necessary to apply some Oil in order to form an easier Separatⁿ between y^e two Skins, wth otherwise might occasion great Pain; But then it does not fail to get a large Blister, & by y^e means we run y^e hazard of an Ulceration. — Oil is therefore, by no means proper, unless when y^e Separation of y^e Skins from each other is attended wth great pain & Convulsions — but Alcohol does this much better and at y^e same time averts y^e Pain. Some are afraid y^t Alcohol will produce Gangrene & Mortification; we should be cautious how we use it in large Burns alone, but join'd wth y^e Bark its application is very safe — the Bark will take off y^e pain, & produce a laudable Suppuration.

Of the Phrenitis

Having treated of External Inflammⁿ we now come to y^e Consideration of the Internal. — wth the Internal Pt. are inflamd their Functions will be greatly Alter'd & depriv'd, so y^t besides y^e Alteration made by y^e Inflammⁿ itself, there are several Symptoms wth arise from y^e Depravation of those Functions. We shall consider these Internal Inflammⁿs & their various Symptoms & then proceed to their Method of Cure. — We shall begin wth y^e Inflammⁿ of y^e Brain.

All kinds of Delirium have been supposed to arise from an Inflammⁿ of y^e Brain, But Dissections prove y^e Contrary, for there have been many Deliriums in w^{ch}

All Deliriums do
not proceed from Inflammⁿ
of y^e Brain.

Of Phrenitis.

The Brain on examination has discovered no signs of Inflammation, such as redness or Adhesion. — Indeed, Adhesion is not a certain sign of Inflammation. Because it may take place with previous Inflammation, tho' many times an Inflammation of a few Hours will cause it to take place; But when there is no such adhesion found in Persons dying of a Delirium, tis evident there was no Inflammation.

Convulsive delirium There are several kinds of Delirium, which are not attended with Inflammation. — There is a Delirium which arises from a Cold Fit of Fever in which there never has been any Inflammation found; the Delirium which arises from weakness & Irritability is never accompanied with Inflammation; And even a Delirium which arises from an Inflammation of the Brain or too strong an Action of the Arteries does not appear to be attended with Inflammation. — I have been present at the inspection of two Bodies who both died of a small Pox & yet in a State of great Disorder, from too strong an Action of the Vessels, & there did not appear any signs of Inflammation in either.

We are at present to speak only of a Delirium of the Brain & of Delirium which arises therefrom, & no other kind whatever. — This is a Disorder, if it is by no means so frequent as some have imagined; there are very few Causes which can be so applied to the Brain as to produce an Inflammation; it is defended so by the Bones of the Cranium that no external Stimulus can be applied to it unless where there is either a Fissure or Fracture.

Causes It is usually caused by Cold, whereby such a quantity of Blood is thrown upon the Brain as to cause a considerable distention of the Vessels & thereby bring on an Inflammation. — Another Cause, may be, great Heat, such as if of the Sun applied to the Head, which has sometimes brought on an Inflammation there. — Lastly, an Inflammation of the Arteries taking place in the System may bring on an Inflammation of the Brain: the Head is subject to have its Vessels act strongly, whether it be on account of the largeness of the Vessels there, or on account of its nearness to the Heart, in consequence of which tis liable to Inflammation.

Of Phrenitis

Distinctions

Phrenitis may be distinguished into Primary & Secondary. — Most of these Phrenitis if have been supposed to arise from some other Dis^e are not Phrenitis but Deliriums of a diff^t kind ^{than} from — Inflammations of ^{the} Brain frequently arise from different causes ^{if} those enumerated, such as too large a quantity of wine &c with^t any previous Fever.

This Dis^e is attended with very diff^t symptoms accord^g to ^{if} diff^t Parts ^{of} are Inflamed; Inflammations are in proportion to ^{the} ~~tenseness~~ ^{tenseness} or irritability of ^{the} Part; there is no part of ^{the} Brain made ^{of} is very irritable, but its parts differ considerably in their ^{tenseness} — The Membranes, are much more tense ^{of} Brain itself, if these are therefore affected there is considerable pain; but ^{of} Brain itself is not very sensible, for there have been great quant^s of Pus formed in it with very little pain. — The situation of ^{the} Pain as well as its acuteness shows us

How known from
other Pains of ^{the} Head

wt. part is affected. — That Pain of ^{the} Head wt^h arises in Fevers & wherein ^{of} Brain is not affected, is commonly above ^{of} Eyes, or sinking into ^{of} Eyes; this is not so deep as ^{of} Brain, & occupies either ^{of} External Pericranium, or the Membranes lining ^{of} Sinus Frontalis — wt^h there is a contraction takes place in any of ^{of} Capillary vessels, & a quantity of Blood is forced upon ^{of} them, there is a pain occasion'd by their distention. — All hysterical Pains have their seat here also — The Pain wt^h is seated in ^{of} Brain is chiefly in ^{of} back part of ^{of} Head, or shoot^g from ^{of} Forehead backwards. — There is a kind of Pain wt^h sometimes occupies ^{of} Pericranium, wt^h shoots over ^{of} Head, but not into it; but ^{of} Pain aris^g from an Inflamⁿ of ^{of} Brain is deep seated. — It seldom ^{of} ^{of} Brain is affected with Inflamⁿ with^t a strong action of its vessels especially those of ^{of} Meninges; it may be therefore known by ^{of} redness of ^{of} Face; ^{of} Eyes also affec^d a very good criterion, they are large & swell'd, their vessels are urg'd, & ^{of} Patient can't bear the light

Of the Phrenitis

The Pain be deep seated, & accompanied with these symptoms, together with Stupor & Delirium, shew us y^t of Brain is inflam^d.

This inflamⁿ of y^e Brain is sometimes attended with an Inflamⁿ Diathesis, & sometimes not; as I observ^d, there may be an Abscess form^d in y^e Brain with any external signs of Inflamⁿ, w^h it occupies a soft Part shew^s but a slight Inflamⁿ & Diathesis; but w^h y^e membranes of y^e Brain are affected there is a considerable degree of Inflamⁿ & Diathesis, y^e Pulse becomes hard, full & strong.

I am now speak^g of a Primary Inflamⁿ of y^e Brain, & not y^e w^h arises from an Inflamⁿ & Diathesis prevail^g in y^e system, for in y^e case, y^e Inflamⁿ & Diathesis still continues.

Prognosis

The symptoms y^t arise from an Inflamⁿ of y^e Brain, besides those y^t accompany Inflamⁿ in general are such as take place in consequence of y^e office of this Organ; As y^e Brain is y^e source of sensibility & irritability to y^e other parts of y^e Body, so y^e first symptoms of this Part be^g affected is a loss of sensibility to y^e other parts of y^e Body; the Patient is affected with Stupor and at y^e same time y^e irritability is considerably lepp^d;— this Stupor frequently continues for a great length of time, & is at length followed by a convulsive contraction of y^e Muscles; & y^e Brain be^g greatly compress^d y^e Patient is frequently cut off in y^e midst of these convulsions. — Tho' one w^od have hardly expect^d it yet we seldom find y^e Meninges affected with^o y^e almost hazard to y^e Life of the Patient.

This Dis^e if left to itself is always fatal; for either y^e Dis^e increases, attended with Stupor & Delirium so as to cut off y^e Patient; or else it goes on to suppuratⁿ; & as there is no method of evacuat^g y^e Pus, it goes on destroy^g the surround^g Parts, till there is not enough left to continue Life:— there have been some Instances, in w^h y^e greatest part of y^e Brain was destroy^d before y^e Patient di^d.

Of the Phrenitis

From what has been said, we may pretty readily distinguish the Delirium attendg a Phrenitis from other kinds of Delirium. It may be easily distinguished fr^m Delirium if arises in of Cold Fit of Fever, because it is always accompanied with of symptoms of 2^d stage, w^{ch} prove, if it is fr^m want of a proper quantity of Blood circulatg thro' of Brain. The Delirium arisg fr^m weakness is also easily to be distinguished, by of circumstances of weakness if attend it such as Pale Red Blood &c. w^{ch} Delirium.

Distinguish fr^m
Delirium in of Cold
Fit of Fever

From weakness arises fr^m weakness of Pain always occupies of Forehead & of sinus Frontalis as well as of former Delirium; of eyes are quick, & not dull as in of Inflamⁿ of of Brain, the Cornea is very clear & there is no flushg in of Face; and passion of face is evident, if Patient not having slept for 5 or 6 nights before, & if Delirium has arisen fr^m want of sleep. — Delirium arisg from an Inflamⁿ of Diathesis

In Inflamⁿ Diath^{sis}

is more difficult to distinguish from it; nor is it of much importance as the treatment is nearly of same; some have call'd it a symptomatic Phrenitis. The only way of distinguishg y^m is by of Acuteness of Pain; for in of Delirium arisg fr^m Inflamⁿ of Diathesis of Pain is dull & heavy, whereas if of Meninges are affected, of Pain is very acute; and if of Delirium continues for some time, if it arises from an Inflamⁿ of of Brain, it is attended with Violent Convulsions, whereas the other is attended only with a stupor.

Cure.

w^{ch} an Inflamⁿ of of Brain has taken place we are to use our utmost endeavor to prevent its going on; now of Treatm^t of this Dis^e will differ a little accordg as it is attended with an Inflamⁿ of Diathesis or not. If it is attendd with an Inflamⁿ of Diathesis we are to take away a large quantity of Blood from of Brain, 16, 20 or even 30 Punces may be taken at once; it is better take a large quantity at once, y^t if same or a larger quantity at two bleedg. b^{cs} by this method we weaken the system most effectually — perhaps tis best to bleed ad deliquium

By Bleedg.

Of the Phrenitis

This method of treatm^t: shoud be particularly observ'd at y^e begining of y^e Inflammⁿ: w^h is further advanced is much more difficult to subdue it — by y^e we don't know how soon Pus may be form'd; in violent Inflammⁿ it begins to be form'd in two or 3 Days, & then is very difficult to cause it to be absorb'd

— If a 2^d bleed^g is necessary, tis to be repeated.
 2^d bleed^g in y^e Jugular

If there is no Inflammatory Diathesis tis better to take away a quantity of blood from y^e External Jugular Vein; this practice has been found to be of peculiar service — Or if we have got y^e better of y^e Inflammatory Diathesis a smaller quantity of blood from y^e Jugular is found to be of great use. — The External Jugular is difficult to be compress'd, & therefore as a large quantity of blood can't be got out of it, it woud be better to bleed first in y^e Arm, especially if there is an Inflammatory Diathesis present, & then in y^e Jugular.

— Purgings

Purgings is also of consid^{ble} service here, because by this means we bring down a considerable quantity of blood into y^e Intestines & thereby lessen y^e quantity remain^g in y^e Vessels in general, & particularly in those of y^e Head — In Fractures & Contusions of y^e Skull where there is a quantity of blood extravasated, purg^g is of y^e greatest service, & I question whether it is not of greater service y^e y^e Trepan, especially as manytimes we cannot find where y^e extravasated blood is lodg'd, this is peculiarly y^e case in Contusions — I have seen y^e greatest benefit in such cases by purg^g with Salap^g, or y^e Neutral Salts so as to obtain 6 or 7 stools in y^e Day & that for 5 or 6 days together — But if we find y^e Purgatives are not suff^t to save y^e Patient we must have recourse to y^e Trepan — But in Inflammⁿ of y^e Brain we shoud use y^e Anaphlogistic Purgatives such as Rhu^g & y^e Neutral Salts.

— use thereof in Fractures & Contusions

By Blister

If after y^e Inflammatory Diathesis is carry'd off, y^e Inflammⁿ of y^e Brain still continues we must apply a Blister to y^e Head — I have suddenly seen mischief done by y^e Application of Blisters to a distant part of y^e Body, they have acted as Stimuli & have increased y^e Inflammatory Diathesis. — In all Internal Inflammⁿ Blisters

Of the Angina,

sho'd be apply'd as near to it as possible as possible, and in this case we w^d apply a Blister large enough to cover it Head.

Med^t produc^t Equale Circulatⁿ Small Dose of Med^t produc^t Equale Circulatⁿ such as Arsenical, Pancholide, & Nettle snake root may be given to Advantage — they are indeed more useful in Inflammⁿ of Throat & Abdomen, y^t in Phlegmⁿ or Angina, but as they will do no sort of mischief they may be apply'd in this case; & as if Dis^e is sometimes so violent as to cut off a Patient in 24 Hours, so this med^t must be apply'd in a greater quant^y y^t in y^e former.

Signs of
Suppuratⁿ

If a Suppuration takes place, it may be known by flying Hairs & Horrors, the flushings of Face & redness of Eyes go off, but there remains a degree of Stupor; in this case we have but little chance, the only one is y^t of Pus be reabsorb'd, but we don't know how this reabsorption can be assist'd — This Pus may be continued for some time before y^e Pat^t is destroy'd; but there is a Stupor & a loss of Sight especially w^h y^e Pat^t stoops forward —

Food

The Food is to be y^e same as directed in other Inflammⁿs.
We must be careful how we apply this Treat^t to other kinds of Delirium as it may be fatal.

Of the Angina

Inflammⁿ of Throat may be class'd among y^e Inflammⁿs of y^e External Parts of y^e Body, but accord^g to an division, it must be class'd among y^e Internal, as it begins where in it is bag'd proceed from, or pass to the Head, & distribute Branches to y^e Trachea & Oesophagus.

Inflammⁿs of y^e Throat are not uncommon, & may be excited by diff^t Causes

— The Erysipelas w^h may affect the Throat & w^h is an external Inflammⁿ we shall say nothing of, the Inflammⁿ of y^e Mucous Membrane, we shall treat of hereafter; tis of Inflammⁿ of y^e Muscular Parts w^h come at present under our Consideration, & w^h may arise from very diff^t Causes.

Of the Angina

Causes.

It is often caused by cold wth wth apply'd, contracts of skin of y^e Throat & Face & thereby throws a greater quantity of blood on y^e Internal Arteries whereby an Angina is form'd — we have Anginas produced by y^e heat of y^e an Inflam^y Fever — whenever an Inflam^y Diathesis is produced, a slight stimulus will bring on a particular Inflam^y; & as y^e Throat is much exposed to y^e action of a great number of Stimuli, it is often inflam'd; it is remarkable y^e particular seasons of y^e year dispose to y^e Inflam^y of particular parts more y^e others; thus at some seasons Anginas are more frequent, in others Pleurisies & in other Inflams of y^e Intestines; this is supposed to be owing to some particular quality in y^e Air; but it is sensible y^e wth Catarrhs take place Anginas are most frequent; commonly some degree of Catarrh arises wth the Fever, & wth y^e Inflam^y Diathesis takes place, this Inflam^y wth only affects the Mucous Membrane, spreads itself further, & becomes an Angina — where y^e cold apply'd does throw y^e blood on the Thorax or Abdomen Inflam^y of those parts are produced.

Anginas may be produced by subst^s wound^y y^e internal Pt of y^e Throat, fr^m quantities of spices or other subst^s stimulat^y y^e Throat — But y^e most frequent Causes are those already mention'd.

Distinctions

as affect^y lax or
tense parts.

As y^e Angina may affect diff^t parts, so it has diff^t symptoms accord^y to y^e diff^t parts it occupies, & y^e diff^t Functions of those parts y^e are injur'd. There are some parts y^e are very lax, wth it affects them, unless y^e Inflam^y runs very high, y^e Pain is not great; but there are some Membranous Pts, wth have are affected y^e Pain is very acute; in the former case, y^e Cellular Membrane above y^e skin is y^e seat of y^e Disorder; in y^e latter, y^e Muscles ab^t y^e Larynx are affected. The Inflam^y Diathesis wth accompanies y^e Angina will also be in proportion to y^e Laxness or tightness of those Pts wth are affected; if it subsisted on y^e comp^o of y^e Angina it will not be remov'd on its accession — Agreeable to y^e seat of y^e Disorder y^e swell^y will appear; if y^e Cellular Membrane is affected, the swell^y will be outward; if y^e Muscular Pts, y^e swell^y will be inward.

Of the Angina

- the External Parts* If external Parts are affected, there will be a considerable redness, tho' many times of skin may not be much discoloured; if the Tongue are affected there will be a redness of these Parts. — Other symptoms also vary accord^g to the diff^t Parts affected; if the
- the Throat* Pharynx is inflamed, there is a difficulty of swallowing; the Patient finds something like a Lump obstruct^g of Passage of Food, & swallowing is performed with great Pain; afterwards Food & Liquids are thrown up at the Nose; & at last the Passage is wholly obstructed — Drink is generally swallow'd better than solid Food but this is not always of Case. — No substⁿ can be thrown into the Stomach, if the Disease is attended with some symptoms in consequence hereof; for if the Natural Salts are not wash'd off, if Blood becomes putrid, if the Stimulus of those salts also increases of Inflamⁿ; if the Patient is wasted for want of food, he falls into a Delirium & is cut off — But if Case is seldom so deplorable, but w^t we may find means to introduce some Food into the Stomach where-by these consequences are avoided
- Inguinal compress* If the Inguinal Vein is so compress'd (& veins are much easier compress'd than Arteries) as the Blood can't descend freely from the Head, the Face swells, there is a black Ring form'd abt. the Eyes, if Blood be^g thrown into the cellular membrane there; a quantity of serum is thrown into the cellular membrane of the Face w^t brings on a swelling of the part; a stupor arises w^t is not attended w^t a violent Delirium w^t cuts off the Patient. — If the Lymphatics should be compress'd, there arises a dropsical swelling of the Face, hence Anginas have been describ'd as watery.
- Lymphatic compress*
- Trachea obstructed* If the Trachea is so obstructed that there is but little Air drawn into the Lungs & consequence is, the Blood becomes accumulated in the Lungs & the Heart & the Veins lead^g thereto, the Patient feels an Anxiety abt. the Precordia; the Inguinal Vein not being able to discharge its blood is also distended, & in consequence thereof the Brain is compress'd, a Delirium comes on w^t generally kills the Patient; the Pulse becomes very quick, then irregular, & generally intermits before the Patient dies.

Of the Angina

Prognosis

The Angina in consequence of these symptoms becomes a dangerous Dis^e. It is attended with more or less of an Inflam^y Diathesis and of the Part wh^{ch} is affected thereby; if the Part affected is less of Inflam^y Diathesis is not great; but if the Part is tense there is a considerable degree of Inflam^y Diathesis.

It frequently happens that wh^{en} an Angina is hot on by the hot Fit of a Fever if the Fever is not removed wh^{en} the Inflam^y takes place & frequently attends it thro^{ugh} the whole of the Dis^e.

If the Angina sh^{ould} not arise to the height it has been described, it commonly separates this is by no means fatal; it either breaks externally or internally; if it breaks into the Mouth or Throat it is soon cured because the Parts are kept warm & defended from Stimuli; if it breaks externally, if Ulcer is not difficult of Cure; but there is some danger from Pus if it sh^{ould} fall down into the Lungs & there begin an Ulcer; or if it sh^{ould} fall outwardly among the Muscles & descend into the Chest where it may form an Empyema & destroy the Patient; but as we can open the Chest in such a situation as may be attended with the least danger, if Pus may be preserved.

Cure

By Bleed^g

The Cure is to be performed by Bleed^g from the System in gen^l. according to the degree in wh^{ch} the Inflam^y Diathesis prevails, & this frequently carries off the danger arising from this Dis^e. — 16 or 20 ounces taken away at a time does much more service than twice the quantity taken off at diff^t periods; small bleed^{gs} repeat may for a time lessen the Inflam^y, but it increases again to the degree as not to be resolved by any method. — Bleed^g in the Part affected is of service in the Angina but this can't be done by any particular vein — bleed^g with Leeches has been practised with some success.

Purgatives

Purgatives are of service, not only as they evacuate the System in gen^l. but if the Part affected in particular be caused by blood to circulate in the Intestines — Those to be used are the Neutral salts, Taster, Magna, Calomel.

Blisters

Another method is the Application of Blisters, if the Inflam^y Diathesis is not great, for where the Internal Parts are affected, inflam^y of Skin is of great service; this may be done by Salts of only Stimulate but to not raise a Blister, such as Caustic Volatile Alkali

Of the Angina.

join'd with Camphire, or of volatile Spiritment rub'd in till y^e Parts look red
these have been found of service. — Blisters sh^d not be apply'd while y^e Inflam^y
Diathe^s is great, because y^e increase it; this is especially true, where Blisters are
apply'd at a great Distance from y^e Part Affected — but y^e are not to be apply'd to y^e
part inflam'd because they will in y^e case of Inflam^y.

It sometimes happens, w^h y^e more interior Parts of y^e Throat are affected, y^e a considerable quantity
of Mucus is secreted & y^e Inflam^y thereby diminish'd; it might rather to be removed
but we don't expect much benefit from this; we frequently apply Med^y to stop this secret.
Risks w^h act as Statives are apply'd with consid^l Advantage tho' y^e stop this secret.
Gargles made of Infusion of Roses & Mineral Acids are of advantage.

After y^e Inflam^y is taken off in some measure we apply med^y to produce equable
Circulatⁿ, such as Neutral Salts & Antimonials; but we prefer y^e latter now: we can
more certainly trust to — where y^e Inflam^y Diathe^s is consid^l we apply y^e Neutral
Salts, but afterwards we use Sweet Spirit, w^h sh^d be given in such quantities as not
to make y^e Patient sick. — By this means we generally can take off y^e Inflam^y.

We are next to shew you y^e Methods of Avoid^g y^e Accidents arising from y^e Pressure
of diff^t Parts. — If y^e Esophagus is so compressed y^e noth^g can be thrown into y^e
Stomach, we may in some measure supply y^e want of Food, by Clysters — But it is not
so much destroy'd by want of Food as by want of Drink, y^e Neutral Salts not b^g wash'd off,
y^e Putrescence increas^g, y^e vessels also b^g empty, y^e Pat^t is greatly weaken'd; if we
can throw in any mucilaginous Liquid, we can support y^e Pat^t till y^e Suppuratⁿ takes place.

But tis difficult to make these Solutions to stay in the Intestines for a considerable time
Especially if they are thrown in large quantities — we generally throw in some
Barley water or Starch & water, to y^e quantity of 5 or 6 Ponces in as many Hours;
we don't expect y^e this will be converted into Blood, but it may serve to wash
off y^e Pusulent Subst^s & y^e Neutral salts — Opium has been us'd to cause these
Glysters to continue a proper time in y^e Body, but Opium greatly increases
y^e Inflam^y wherever it is apply'd, it affects y^e whole System & increases y^e Inflam^y
Diathe^s.

Med^y producing
equable Circulatⁿ

The Method of Avoid^g
Accidents —
For y^e compressⁿ of Esoph^g
by Clysters.

Of the Peripneumony

Of Jugular Vein by Blood? If Jugular Vein is compressed, we endeavor to relieve it by opening of External Jugular, w^{ch} sometimes gives such relief y^t if Brain is no more compressed, but if it is, we must perform y^e operation a 2^d time.

Of the Trachea by Peripneumony? If Passage of Air into y^e Lungs is shut up, y^e best way is to cut open the Trachea just before it enters into y^e Breast; you must first make a longitudinal Incision, then cut thro 2 of y^e Rings takg care y^t none of y^e Blood sh^d get into y^e Lungs, y^e wound easily heals again — the difficulty in this operation arises from y^e quick motion of y^e Trachea; tis also difficult to keep y^e Pipe in the wound, w^{ch} must be frequently clean^d, this wound is to be kept open till y^e Inflamⁿ suppurates. — with regard to y^e compression of y^e Lymphatics, the symptoms arising there are not attended with great disadvantage & therefore are not to be regarded, for as soon as y^e swelling subsides, y^e Dropsy disappears.

Of the Peripneumony or Inflamⁿ of y^e Lungs.

The Peripneumony as well as y^e Phrenitis, are Terms y^t have been made use of to include many diff^t Diseases, some have call'd by y^e former name every difficulty of Breathgⁿ (where there was no Inflamⁿ present) that arises in an acute Disease. But it is a particular Inflamⁿ of y^e Lungs y^t we mean to explain under this name.

— A difficulty of Breathgⁿ may arise in a cold Fit of Fever, the same may take place where an Inflamⁿ Diathesis prevails this is great quantity of Blood thrown into y^e Lungs, but we call neither of these a Peripneumony.

Causes

This Dis^e may be produced by a variety of Causes, but not by all y^e causes of Inflamⁿ: as y^e Lungs are defended from external Accidents by closed up in the Thorax — They may sometimes indeed be irritated by external Stimuli descending to y^e thro^t of Trachea, as also y^e may be wounded by a Shot or Burst of a sword in y^e Side, there is a suppuration takes place, & y^e Lungs are not capable of discharging y^e pus in a proper manner; But these cases are extremely diff^t from y^e Dis^e we are speakgⁿ of.

Of the Peripneumony

Very common The Cause w^{ch} most commonly produces this Dis^e is Cold, w^{ch} by contract^g of Internal vessels throws a consid^{ble} quantity of blood on y^e breast. — Some have consid^{ed} this Inflamⁿ as arising from y^e retention of y^e Perspirable matter, but this can't be of Case, for as in these cold climates & times of quantity of Perspirable matter flows off by y^e Lungs y^e issues forth from y^e Pores, if y^e Storage of Perspirable produce a Peripneumony, we sh^d be continually expos^d thereto — P^r Persons are immediately affected by Cold if at all, this Dis^e if it does not immediately succeed to such an exposure, we ought not to attribute it thereto.

Violent Exer^c of y^e Lungs Great Extension of y^e Lungs by violent exercise of y^e has produced a Peripneumony — It sometimes also arises from a Catarrh; y^e Part is first seiz^d with a Catarrh & y^e Inflamⁿ spreads from y^e mucous membrane to y^e Lungs. — Lastly, y^e Inflamⁿ Diathesis alone is capable of producing this Dis^e; for w^{ch} y^e Arteries are act^g strongly y^e Lungs are greatly distended, & there by such a tendency to Inflamⁿ in y^e whole Habit, y^t it frequently arises in this Part — As the Inflamⁿ Diathesis arises in y^e first or 2^d hot Fit of Fever, this Inflamⁿ takes place at y^e time

Oblique Habit — But these Causes are not capable of producing this Inflamⁿ in all Habits, it is much more frequent in cold climates & in strong Habits y^t in any other; it also is more frequent in spring y^t in Autumn, because y^e vessels then act more strongly. — It is not uncommon even in warm climates, especially to those who come from colder climates, because of heat in such increases y^e action of the vessels. — Persons who have narrow Chests, where y^e Lungs have but little room to distend in are more peculiarly liable to this Dis^e; for where there is suff^t room, an increase of distention produces but little danger. Persons also whose Lungs have been formerly diseas^d, either by an Asthma or y^e same Disorder are very liable to Peripneumonies. — This Disposition is produc^d not only by y^e tendency such habits have to an Inflamⁿ Diathesis, but also by y^e vessels of y^e Part grow^g together whereby there is less room for y^e Parts to distend & to receive an increased quantity of blood.

Of the Peripneumony

The seat of y^e Dis^e
of Bronchial Vessels

proof for Analogy

The next thing we are to cons^r is, w^h Part of y^e Lungs is affected in this Dis^e. — The Lungs are compos^d of two sets of vessels; One of w^h arises from y^e right Ventricle of y^e Heart & carries y^e Blood thro^u the Lungs to y^e left Ventricle; the other arises from y^e Aorta & is in proportⁿ to y^e solid Part of y^e Lungs as y^e vessels in other parts of y^e Body are to y^e solids; this is accompanied with a Vein, w^h returns y^e Blood to y^e Vena Cava; this last artery is intended for y^e nourishm^t of y^e Lungs — The question is, which of these two sets of vessels are affected by this Dis^e, whether it is seated in y^e Pulmonary, or Bronchial Vessel? — I apprehend it is y^e Bronchial Vessel. — This appears from Analogy in other Inflam^s. In all other Inflam^s there is a greater quantity of Blood thrown into y^e Part y^e at any other time; but at this time there is a less quantity of Blood thrown into y^e Pulmonary Artery y^e at any other; & then then this Inflamⁿ is diff^r fr^m all others, b^e cause it is y^e Bronchial Vessels y^e are alone affected. — The Pain also shews it, for y^e is always in proportion to y^e space y^e is left for y^e vessels to distend y^e selves; now if y^e Pulmonary Vessels were the seat of this Dis^e, there is but little room for y^e to distend, & therefore y^e pain must be considerable; But y^e Bronchial Arteries are comparatively few & therefore have much more room to distend. — Again, if y^e Pulmonary Arteries are affected, y^e are so very large y^e we sh^d expect an Inflamⁿ of y^e w^d stop y^e Respiration entirely; for if such a swell^g sh^d take place as does in y^e Cellular membrane on a like Occasion, y^e Chest w^d be fill^d up with y^e Lungs & consequently their play w^d be prevented; whereas y^e swell^g of y^e Bronchial Vessels w^d not have this effect. There is another case of y^e same sort w^h this bef^e us, in y^e Inflamⁿ of y^e Liver, where there is an Analogous structure & a similar Inflamⁿ. — I thot it best to shew you w^h Part of y^e Lungs was affected because we sh^d afterwards understand y^e symptoms better.

Of the Peripneumony

Diagnosis
Prognosis

When of Inflamm. arises, there is an acute Pain takes place in of Breast; this is more of a Load of of Breast w^{ch} takes place in an Inflam^y Diathesis; and frequently this pain is in one Lobe only; this Pain is never very violent, sometimes in one & sometimes in both sides of of Breast, & sometimes it spreads so as to affect the whole of of Lobe if it is inflamed. — This Pain is attended wth difficulty of Respiratⁿ, there arises a tough together w^{ch} consid^{le} Anxiety abt. of Pleuridia — These are of first symptoms w^{ch} appear provided it comes on wth any other Dis^e.

The Pulse is quick from of begin^g. — If it is of Bronchide vessels of an affected we can easily account for of Pain not of pump^g & also for of Oppression & Anxiety. for w^h a Part becomes inflamed tis much more difficult to be distended; w^h it is thus distended it presses on of Capillary vessels, in consequence here of a quant^y of Blood is accumulated in of Similes Venosus w^{ch} presses on of Heart, w^{ch} produces an Anxiety; as soon as of Heart is dilated, of Blood rushes in with force, w^{ch} stimulates of Heart to frequent contractions.

We have already observed, of of Inflam^y Diathesis is according to of Tension of of Part, we have therefore but little Inflam^y Diathesis here; the Blood has not room to circulate thro' of Arteries, & therefore their Action must be weakened — The Pulse therefore is not hard here as in other Inflam^{is}. — The Blood comes now to be considerably accumulated in of Veins, from whence there arises a consid^{le} swell^g & Oppression abt. of Pleuridia, attend^d with sickness thro' of compression of of vessels of the stomach; The Jugular Veins swell also, & of Brain becomes compress^d, from whence a Stupor arises. — The Pulse is now attend^d, tis not only quick but also very irregular; sometimes 5 or 6 small strokes are given & then a large one, & sometimes it intermits for of space of one stroke; as of Blood does not get in sufficient quantities from of right Ventricle of of Heart to of left, it is therefore irregularly thrown out by of Aorta.

A great difficulty of breath^g now arises, of Pat^t sits up in his Bed, & expects all the

Of the Peripneumony

Muscles of the Thorax in Respiration; The Nostrils are dilated, & a wheezing Noise takes place; the Pat^h swells, & looks red in y^e Face; Delirium comes on attended with low muttering; at length y^e Blood is so accumulated in y^e Brain y^t y^e Pat^h falls into Convulsions & dies.

Sometimes cur'd
Natural Expectorations
of Mucus.

It is not always y^t y^e Dis^e if left to itself will thus terminate, for there is a Natural means whereby this Dis^e is cur'd, w^{ch} is by a Secretⁿ from y^e Mucous Glands of y^e Lungs — by means of y^e Cough there is a greater quant^y of Mucus secreted, this at first is only y^e simple Mucus from y^e Glands; but sometimes it is thick fr^m y^e begin^g, but transparent unless there is a quant^y of Matter stagnat^g in those mucous Glands, or where there is blood forc'd into y^e Cells, then there Mucus appears streaked.

As soon as there is a large secretion y^e Pulse is reliev'd, it becomes regular, & all y^e symptoms abate; if it continues for 8 or 9 Days, the Dis^e is cur'd. — We have already observ'd, y^t w^{ch} any Part is inflam'd, y^e Mucus changes to a greenish or yellowish Colour, & at length to a Resemblance of Pus; this is y^e case here; w^{ch} this happens, y^e Dis^e is reliev'd, & y^t by a Cause arising fr^m y^e Vessels y^e Mucous.

this liable to Acid^{ty}

This secretion is liable to a great many Accidents; sometimes it continues thin for a consid^{ble} time, in this case it rather increases y^e Inflamⁿ, for if it is thrown out as it is secreted, y^e Neutral salts with w^{ch} it then abounds, is apply'd to y^e surface of y^e mucous Membrane & stimulates it. — Again, it may not be secreted in sufficient quantity, so y^t tho' it diminishes y^e Inflamⁿ it does not carry it off, it only serves to relieve y^e Pat^h so as to bring on a Suppuratⁿ. — It is also very liable to be stop'd; y^t Cold Air, or a very slight Astringent apply'd, suppresses it, & y^e Inflamⁿ increases. — Lastly in Lungs y^t have been formerly disord^{ed}, where y^e Glands have been indurated, or where y^e Mucus is harden'd on their surface, y^e mucous Glands are liable to be torn off by y^e Cough, & an Ulcer takes place.

Of the Peripneumony.

Sometimes, there is too great a quantity of blood thrown out & separated with the Mucus. w^h there is a small quantity thrown out, tis rather Advantageous, but w^h there is a large quantity separated, part is liable to remain in y^e Glands, where it generates Pus — where there is a large quantity of blood thrown out, it renders y^e case doubtful.

Symptoms in
Gangrene

It sometimes happens, y^t w^h y^e Dis^e is going on wth great violence & y^e worst symptoms appear, y^t they cease at once; the Pat^t breaths much freer yⁿ before; but on examining y^e Pulse we find y^t it is very soft & quill, & a sanious Matter is thrown up; this shews y^t a Gangrene has taken place, & y^e Patient must soon be destroy'd.

By Hemorrhage

The Dis^e is sometimes carried off in a diff^t manner, a large Hemorrhage arises in another part of y^e Body, as in y^e Menstrua or Hemorrhoids & y^e Dis^e is cur'd. One w^od think y^t it was hardly possible for y^e Dis^e to be reliev'd by so small an Evacuⁿ. But we are to cons^r y^t at this time there is a large quantity of blood circulat^g abt^y y^e womb, besides w^h is evacuated.

By Inflamⁿ

By suppuration

If an Inflamⁿ sho^d arise in a diff^t Part, then, an Inflamⁿ of y^e Lungs may be carried off. — Lastly, in this Inflamⁿ, as well as in all others, where any Fluid can be thrown out & retain'd, y^e Dis^e goes on moderately & terminates on y^e 3^d or 4th day in suppuration; a quantity of Pus is form'd w^h does not so much compress y^e Vessels, & therefore y^e Pat^t appears to be reliev'd. — The first symptoms of a suppuration in y^e internal Parts are slight shiverings & cold follow'd by a relief of all y^e symptoms, leav^g only a sense of weight on y^e Part & a difficulty of breath^g w^h y^e Patient lies on one side. — The particular treatm^t of suppuration in y^e Lungs we shal^t treat of w^h we come to speak of y^e Pulmonary Consumption.

Distinctions —

- 1st kind of Fever

We come now to shew how other kinds of Difficult^y Respiration may be distinguished from this w^h takes place in y^e Peripneumony. — That w^h arises fr^m y^e Cold Fit of Fever is very diff^t, because it comes on by exacerbations & is reliev'd by y^e succeed^g Fever, whereas this gradually increases; In y^e Cold Fit of Fever, it

Of the Peripneumony

continues only dur^g of Exacerbation & y^e begin^g of y^e Hot Fit — In continued Fevers, y^e difficulty of Respiration comes on in y^e Evening & y^e Pat^t is greatly relieved in the Morn^g; Besides, in y^e cold Fit of Fever y^e Pat^t is never attended wth such Symptoms of Suffocation as here; Besides, y^e difficulty of Breath^g is attended with all y^e other symptoms of y^e first stage of Fever.

for Asthma

The Asthma may be also distinguish'd, because is common it does not produce such a violent difficulty of Breath^g as here — Sometimes in a violent cold there may be such a difficulty of Respiration as may greatly resemble a Peripneumony such a quant^y of Blood is y^e thrown into y^e Lungs as prevents its ready passage thro^g & w^{ch} causes such a compression of y^e Air vesicles as prevents it from being drawn in in sufficient quantities. — Sometimes we have nearly y^e same symptoms both with regard to y^e Pulse & y^e Stupor; but the two Dis^e may be distinguish'd by y^e Pat^t's body before subject to an Asthma, & also by y^e Pat^t's complain^g of no particular Pain; the Pulse is not so irregular in y^e Asthma as in y^e Peripneumony there is an universal load on y^e Breast felt in y^e former, & it comes on very suddenly. Indeed y^e manner of breath^g is pretty near y^e same in both Dis^e.

for Catarrh

The Catarrh is also easily distinguish'd from y^e Peripneumony; this is a difficulty of Respiration w^{ch} arises from an inflamⁿ of y^e mucous membrane; this being a visible membrane there is generally a consid^l soreness felt in y^e Breast; the Nose & Mouth are also considerably affected; the Pulse, if attend^d, is hard & strong; y^e Membrane of Throat there is a consid^l inflamⁿ & Diathesis; there is also gen^lly in y^e Catarrh a secretion from the Begin^g, at first extremely thin & Acid, w^{ch} as it comes up y^e Trachea washes off y^e Mucus so y^t there is a pain in y^e Throat attended with a soreness. There are other Cases in w^{ch} a difficulty of Breath^g takes place wth hardly discover^d nature, y^t w^{ch} arises with an inflamⁿ & Diathesis is always attend^d with a hard Pulse.

for a Palsy of y^e Breast

A Palsy of y^e Muscles of y^e Breast with occasion y^e same symptom but is easily distinguish'd. Rheumatism affect^g y^e Breast will also bring it on — 'Tis y^e same wth y^e Pleurisy, where there is consid^l pain in y^e Muscles of y^e Breast & w^{ch} is increas'd by touch^g y^e part.

Of the Peripneumony

Little advantage can be expected by these Stimulants, unless we suppose
 y^t. they Stimulate one set of Glands more than another — Neutral Salts we
 know affect y^e Kidneys more y^t. any other gland; but Volatile Alkali affect y^e
 Lungs most, & therefore such we chuse to use — Mucillicae are of this Nature
 of this class y^e Squills are y^e best, w^h we wou^d chuse to use — Other med^s have
 been us^d such as essential Oils distilled from Trees, such as Gum Ammoniac
 & y^e Balsams; But these are too inflam^g & liable to increase y^e Disorder w^h
 wou^d be attended with great ill consequences in this case. — The Liliaceae are
 very efficacious & generally soon promote a consid^l secretion fr^m y^e Glands of y^e Lungs

Another way is to apply so^m volatile Stimulat^g subst^s to y^e Lungs y^m.
 This is done by y^e Pat^h drawing in y^e vapour of y^e Infusions of Aromatic Herbs.
 the essential Oils of those Plants stimulate y^e Glands to a secretion; this sometimes
 produces good effects; y^t only difficulty is, y^t w^h y^e breath^g is very much
 affected we cannot use y^m with so much advantage, especially as y^e vapour
 of water is not so proper for respiratⁿ; but when y^e breath^g is difficult
 these vapours are thrown in with Advantage.

Mucus contin^g
 too thin.

The next difficulty in this Nat^l method is, y^t y^e Mucus sometimes continues
 thin for too long a time; y^e Neutral Salts stimulate y^e Glands too much &
 produce some Inflamⁿ; to prevent w^h we cover these Glands by y^e applicatⁿ
 of express^d Oils & vegetable Mucilages. — One wou^d not expect any great
 effects from these, but it is certain y^h do an^m y^e Ind.

By this method of Cure y^e Dis^e many times abates so as to go off at y^e end
 of y^e 2^d week at y^e 9th, 10th, or 11th Day.

not suff^{ic}
 blood?

But it sometimes happens y^t y^e evacuation by Mucus is not sufficient to abate y^e
 Inflamⁿ; we are therefore oblig^d to take away some Blood to make y^e evacuation
 of Mucus equal to y^e Dis^e; but as we are here speak^g of y^e Natural Method of Cure

Of the Peripneumony

we must not bleed largely, or else we shall check ^{the} secretion of mucus; & this constitutes
of difficulty of join^g these two methods of cure together.

Proper Food

In the mean time, no solid Food is to be exhibited in the begin^g of this Dis^e. & if
a quant^y of Feces are collected in the Intestines they are to be evacuated, but not
by Purgatives, because they are apt to increase the Inflammⁿ. & to diminish the secretion
in the Lungs by increas^g the of the Intestines; we ought therefore to give very gentle
Laxatives so as to obtain a Stool once in 24 Hours; or Glysters may be used for

gentle Laxatives

this purpose. But Laxatives are better, because they empty the whole Intestinal Canal,
whereas Glysters only evacuate the larger Intestines, & there may be matter contain'd
in the smaller Intestines, w^{ch} if not evacuated, may bring on a purg^e; indeed the
more putrid matters are chiefly contain'd in the larger Intestines, but as we have gentle
Laxatives they may be used with safety, we ought to use them.

We must next take care of the Air w^{ch} the Pat^t breaths is not too cold or too hot;
very cold Air is apt to contract the vessels of the Lungs & to stop the secretion, too hot Air
has the same effect. — Great care sh^d be taken to keep the Patient quiet in every respect

This method of treat^{mt}. is many times successful, tho' it is frequently liable to
be follow'd with suppurations; & great care must be taken of the Pat^t be subject to
Quinsies else he becomes as bad as ever. — This method is to be prefer'd where

w^{ch} of two methods
is to be chosen

there is a considerable degree of Fever & great Exacerbations in the even^g, because copious
Evacuations bring on such a degree of weakness as many times destroys the Patient.

Sometimes also it is attend'd with this inconvenience, that the secretion does not stop
so soon as we co^{ld} wish it; but the method of preventing this we shall shew wⁿ we
come to treat of the Catarrh.

By resolution

In general the best method of treat^g this Dis^e is that of Resolution — ~~Resolution~~ we
have shew'd it in gen^l, that bleed^g must be proportion'd to the degree of the Inflammⁿ &
Diathesis, but this present case is an exception to the general Rule.

Of the Peripneumony

By bleed^g

-to be repeated

By Med^s produce^g
Equable Circulatⁿ

By bleed^g we prevent^g Lungs from be^g too much loaded with blood, so y^t y^e Lungs have more room to distend y^e m^o, whereby there is more room for y^e blood to circulate. Some have been afraid to bleed on a^c of y^e weak state of y^e Pulse, so y^t y^e have gon^g by given a Precaution to feel y^e Pulse in y^e opposite Arm dur^g y^e Operatⁿ. & if you find it become more regular to proceed in y^e Evacuatiⁿ, otherwise to stop. But I think this Caution proceeds more from Theory yⁿ Practice; I don't remember a single Case in w^h bleed^g did harm — In general y^e Pulse becomes larger soon after, & many times by a large bleed^g y^e Dis^e is wholly carried off — But commonly this Dis^e is not so easily remov'd, one bleed^g is not sufficient it must be repeated a 2^d time to 10 or 12 ounces, & by this means y^e Dis^e is so far remov'd y^t it may be easily cur'd by y^e Evacuatiⁿ of Mucus. — We can't here bleed from y^e Part affect'd — Nor can we use Purgatives, because hereby a greater quant^y of blood is bro't on the Thorax as well as y^e Abdomen; Sometimes y^e Evacuatiⁿ does more good yⁿ harm, but as it is capable of do^g mischief, tis best to avoid it.

But there are ^{two} other means of great service in Internal Inflamm^s — The first are those Med^s y^e produce Equable Circulatⁿ; these by relax^g y^e Capillaries give more room for y^e blood to circulate. — They sometimes cure y^e Dis^e alone, but we have no reason to trust solely to y^e, as y^e do more good w^h given with bleed^g & sometimes before expectoratiⁿ Med^s. — After hav^g bled y^e Pat^t, these Med^s may be given to great Advantage; and as we wou'd trust to y^e most powerfull, we give Iliche Sarter. The Rattle-snake root has cur'd alone, but tis very liable to purge & to disagree more with y^e Stomach yⁿ Iliche Sarter. — These Med^s are very uncertain in their Dose, some Patients will take double y^e quant^y y^e others will; a quarter of a Grain will seldom disagree, w^h may be gradually increas'd to half a Grain; But it must be given in small quantities at first to make y^e Pat^t sick. — Neutral salts are very uncertain, but y^e may be given while we are evacuat^g y^e before, because we don't chuse to make a Push before y^e is done.

Of the Pleurisy

by Blister

The 2^d Method is, by raising an Inflamⁿ on the skin — Blisters are of most effectual, there sh^d be of a sufficient size, & apply'd as near to y^e Part affected as possible, if they are apply'd to y^e Legs, instead of reduc^g, they will increase y^e Inflamⁿ — This shows, y^t it is not by any evacuatⁿ for y^e vessels, but from y^e vicinity of y^e Inflamⁿ y^t they are of service, for there is no more communicatⁿ betwⁿ y^e vessels of y^e Side & those of y^e Lungs, than there is between y^e and those of y^e Legs. — We sh^d always evacuate before we use Blisters otherwise we shall increase y^e Inflamⁿ.

These Means as far as y^e are compatible sh^d be united wth y^e Natural Method of Cure, they are sometimes inconsistent wth y^e Expectoratⁿ, but evacuatⁿ does much more good yⁿ relax^g y^e Expectoratⁿ does harm — These methods apply'd in proper time, may cure y^e Dis^e, but if it sh^d go on unabated for 3 or 4 days it commonly ends in Suppuratⁿ.

Some have propos'd Opiates in this Dis^e, but y^e always do harm by increas^g y^e Inflamⁿ. I have always seen y^e do mischief in such cases, & are not to be given unless there is a Stimulus in y^e Body. — If any Hæmorrhage or Inflamⁿ sh^d arise in any Part of y^e Body, it sh^d not be check'd, but y^e Inflamⁿ increas'd, they are often of considerable Advantage in y^e Cure of this Dis^e, & frequently on y^e stop^g of such Hæmorrhages y^e Dis^e has recover'd with considerable Violence.

Of the Pleurisy

Causes

cold

The Pleura is a membrane w^{ch} lines the Thorax & forms y^e mediastinum — it is every way defended from external Stimuli, so y^t no Pleurisy can be caus'd by such Applications. — It arises from a distention of y^e membrane, or its vessels, Cold begin externally apply'd contracts y^e vessels of those Parts & throws y^e Blood on y^e Internal Parts, whereby many times a Pleurisy is produc'd; in all wth cases y^e Dis^e is produc'd immediately on y^e Application of y^e Cause —

Inflamⁿ Diathesis

where an Inflamⁿ Diathesis takes place, there is always a full Respiratⁿ; but as y^e Pleura in every Insupuratⁿ is considerably distended, it is very liable to be overdistended, and in consequence thereof to be stimulated & Inflam'd, particularly if any violent Exercise is made use of, or y^e Patient inspires to a violent degree.

Of the Pleurisy

Violent Pleurisy Sometimes of Dis^e is produced in this manner; I knew a Pat^t. who by running violently upstairs was seiz'd with a Pain in his Side, w^h prov'd to be a Pleurisy. Such a Pain in y^e Side is frequently produced by a large Inspiration w^h does not turn to a Pleurisy for want of a proper Disposition in y^e Body to render it y^e cause of Fever. w^h this Inflamⁿ comes on in y^e begin^g of a Fever, y^e Pat^t. feels a shivering & sense of cold, pain in y^e Head &c.; w^h if Hot Fit comes on, y^e Pleurisy appears, and y^e Fever abates — But in other cases, where y^e Dis^e is produced by cold, or Inflamⁿ Diathesis, y^e Pleurisy takes place with^o any previous symptom of Fever.

w^h y^e Inflamⁿ arises in y^e begin^g of a Fever, if y^e Inflamⁿ is violent, it for y^e most part carries off y^e Fever; sometimes a few of its symptoms remain, there are some Exacerbations & Relaxations, & as soon as y^e Inflamⁿ abates y^e Fever becomes more violent, & finishes its stages — Now we shall treat distinctly of these two cases — *Sometimes y^e Fever carried off by y^e Inf.* First, we shall suppose, y^t y^e Fever is entirely carried off by y^e Inflamⁿ.

Seat of y^e Dis^e. In the Pleurisy so small a part of y^e Pleura has appear'd inflam'd y^t it has been question'd whether y^e Dis^e consisted in an Inflamⁿ of y^e Pleura or not; but in Dissections there have been some signs of Inflamⁿ such as redness and Adhesion whereby y^e Pleura has been connect'd to y^e Lungs, & to w^h y^e Dis^e has been communicat'd. Besides, y^e manner in w^h y^e Dis^e terminates & y^e Place where y^e suppuration is lodg'd w^h is either in y^e cellular Membrane of y^e Pleura, or y^e part where it adheres to y^e Lungs prove y^t y^e Pleura is y^e original seat of y^e Dis^e — Altho' y^e seat of y^e Dis^e is so small y^t it is but just discover'd on Dissection, yet tis attend'd w^h most violent symptoms of any Inflamⁿ except those of y^e Brain, Heart & Intestines w^h destroy y^e Pat^t. soon.

Prognosis

The Pain is more violent in this than in any other Inflamⁿ, for y^e Membrane is very fine & y^e vessels have not room to distend y^e selves; besides tis in a place which must be constantly in Motion alternately distended and contract'd, w^h must greatly increase y^e Inflamⁿ — As Respiration of Air must be mov'd, & in consequence hereof y^e Pain is greatly increased.

Of the Pleurisy

There arises in of side a Pain extremely acute & pungent, occupy^g but a small
 Pain in of side space & ready on every side — Of Pleura is distended in inspiratⁿ, of Pain
 is greatly increas'd w^h of Pat^t takes in a quantity of Air; in order to avoid this,
of Pat^t endeavor^s to keep his Chest as quiet as possible; he lays his Hand upon
 his Breast & breaths chiefly by of help of of Diaphragm; he takes in of Air very
 briefly & breaths it out very slowly — this occasions a consid^l difficulty of breath^g
 as the Pat^t only takes in such a quantity of Air as is suff^t to distend of Lungs.

with a cough This Distⁿ is always accompany'd with a cough, w^h as it gives a quick motion
 to of muscles of of Breast, is very painful, & of Pat^t endeavor^s to suppress it as much
 as possible. This Symptom arises from of violence of of Pain. But of Pain is so
 great of to overcome of disagreeable sensation w^h excited of cough stops his
 breath for a considerable time; And tho' of stop^g of Respiration is so painful a Sensatⁿ
of none have ever attempted to destroy of in of manner; yet to avoid of Pain
 exc'd by of cough of Pat^t many times contains his breath to of degree; of of Blood
 has been so accumulated in of vessels round of Heart so as to bring on an Inflamⁿ
in of Lungs w^h has destroy'd of Patient.

Consid^l Inflamⁿ Diathⁿ As this is a very intense Pain, there arises a very great degree of Inflamⁿ & Diathⁿ
 attend'd with great difficulty of breath^g; the Tongue becomes dry & white; the
 Skin red all over; the Blood is thrown into of Brain so as to compress it; there
 arises a Delirium & Stupor; the Pat^t falls into convulsions & is cut off — This
 is of way in w^h of Inflamⁿ & Diathⁿ is most apt to destroy.

Of the next Cure
by Expectoration This Distⁿ as well as of Peripneumony is often of means of of own Cure by of
Expectoration w^h attends it, tho' it does not prove so certain a Cure as in of later.
 In consequence of of cough, or of quantity of Blood accumul^g ab^t of Breast, there is a
 consid^l quantity of Mucus secreted by of glands of of Lungs — sometimes of cough
 continues thro' of whole of of Distⁿ, & sometimes a put^g arises in a Day or two w^h
 abates it. — At first there is a quantity of thin Mucus thrown out but colourless;

Of the Pleurisy

it then becomes greenish or yellowish, w^{ch} of Pleurisy frequently begins to abate till at length it is entirely carried off.

Remark

This natural means of Cure shews how to be light on of Pusser in w^{ch} evacuatⁿ any Inflammation: — It is not necessary y^t if vessels w^{ch} are affected sh^d be y^e selves emptied; for if vessels of Lungs & Pleura are wholly distinct from each other; if we evacuate y^e surrounding vessels, we weaken y^e vessels y^t are affected thereby & carry off y^e Inflammⁿ; or in other words, if a quantity of living Power is thrown out in a certain part of y^e Body, if this Power is weakened in one Part, it is diminished in all y^e surrounding Parts.

It has been thot y^t if matter w^{ch} caused y^e Inflammⁿ was itself evacuated by y^e Expectoration, & y^t w^{ch} this was fully evacuated, y^e Dis^e was terminated — the same has been sd^d of other Inflammⁿs. — But it is evident here y^t this is not the case; for Persons may as well say y^t an Inflammⁿ of y^e Leg is cur'd by Expectoration, for there is no more communicatⁿ between y^e vessels of y^e Lungs & y^e Pleura than there is between y^m & those of y^e Leg; but we find y^t an evacuatⁿ from a neighbouring part will carry off an Inflammⁿ w^{ch} one in a more distant part will not — An evacuatⁿ of mucus will carry off an Inflammⁿ in adjacent part altho there is no communicatⁿ of vessels. — 'Tis evident y^t it is mucus y^e is here secreted; it has y^e same appearance wherever it is secreted, 'tis first of all thin & transparent, then yellow, & last of all white resembling Pus.

A hemorrhage from y^e Part affected produces y^e same effects with y^e evacuatⁿ of mucus, it empties y^e neighbouring Parts thereby weakens y^e vessels affected & carries off y^e Inflammⁿ.

This evacuatⁿ fr^m y^e mucous Glands is liable to many accidents; it does not indeed so certainly cure y^e Pleurisy as it does y^e Peripneumony, because it is not so copiously produced.

Sometimes y^e Inflammⁿ is so violent as to admit of no relief from it, & sometimes it is not in a sufficient degree so y^t it only partially reflects y^e Dis^e but permits it to go on to suppuratⁿ. — Again, this evacuatⁿ is a great while carry^g off y^e Dis^e, for y^e 9 or 10 days

Of the Pleurisy

And if the secretion shod chance to stop, if Dis^r recurs with its first violence and eats off of Patient — The same causes of stop this secretion in of Peripneumony will have of effect here.

Of termination
in gangrene.

Now if the Dis^r shod not arise to such a height as to destroy of Pat^t in a short time, & yet is not carried off it is liable to Gangrene & Mortify. w^h Membranes are particularly liable to. — We seldom have Instances of this kind because it is usual to apply of most powerful means of resolution.

W^h a Gangrene comes on all of Pain ceases & of Patient seems quite easy, but we may know by of Pulse & if Dis^r go^g off with^t a manifest cause, if this is a false appearance; if Pulse is quiet & hard as before; we find soon after of symptoms of of cold Fit of a Fever come on & sometimes with consid^l violence; the Gangrene spreads to of Lungs you selves, sometimes a large Vesicle is destroy'd & of Patient dies of an Haemoptoe, or else he falls into Convulsions & dies. — Wever of Dis^r go^g off with^t cause, we may determine of it issues in a mortification.

In suppuration

This Inflammⁿ like all others, provided it does not issue in a Gangrene goes on to Suppuration; the Pus is found in of cellular membrane of of Pleura or in of part of of Lungs w^h is attach'd to of Pleura. — That Suppuratⁿ is come on appears from of Pain going gradually off, there remain^g some degree of Pain or rather a Load in of part of of Breast; from shew^g a coldness tak^g place, w^h is of case in large suppuration; from there remain^g a difficulty of Breath^g; from a Abtusion felt in of part where of Pain was; from of Patient's not being able to lie on one side. — The terminatⁿ of this Suppuratⁿ we must leave till we come to treat of the Pulmonary Consumption.

Of the Pleurisy

Sometimes of Fever
is not carried off

Tho' the Inflamⁿ w^h it takes place in of Not Fit of Fever does always diminish it does not always terminate of Fever, we have frequently symptoms of 1st stage remaining, such as if urine continuing pale, the skin in some measure dry & contracted, pains in of Head & Back & considerable Anxiety in of Pleura is independent of those pains w^h proceed from of Pleurisy or Empyema. These symptoms increase considerably towards of 2nd & there is a relaxation in of Manner. — While of Inflamⁿ is running on with considerable violence these symptoms are not easily to be distinguish'd, but as soon as of Inflamⁿ is abated the Fever appears more fully, so of in of 2^d week of of Pleurisy you have consid^{le} exacerbations on the alternate nights. — w^h the Fever is not carried off, of Inflamⁿ becomes of more dangerous, because of methods we use to take off of Inflamⁿ greatly weaken of Patient, so of he is sometimes destroy'd by those symptoms of weakness. This, seldom happens in of Pleurisy, but it is render'd thereby a very diff^h Distⁿ from w^h it was originally, being now attended with symptoms of weakness & irritability.

Distinguish^d from
other Distⁿ
— 1st Distⁿ Pleurisy

We now proceed to distinguish of Pleurisy from some Distⁿ to w^h it may bear a resemblance. — In of first place, an Inflamⁿ of of Intercostal Muscles has several symptoms of of Pleurisy, & some have call'd it a Wasted Pleurisy. These muscles must be mov'd in Respiration as well as of Pleura, & as it is a loose part of Pain is very acute, of only difference is, of of Pain is not so great ~~great~~ in ^{Violent} of Part suffers in Inspiration as in of Pleurisy, & of Inflamⁿ Diathesis does not run to so great a height; & where Abscesses take place of may be readily open'd with danger of an Empyema taking place. — In general, these two Distⁿ may be distinguish'd in of following manner, w^h of Intercostal Muscles are inflam'd there is an external swelling & redness, & w^h of Part is compact, it is attended with pain; but this is not of case with of Pleurisy. — But as the treatment is nearly of same it is not necessary of they sh^d be accurately distinguish'd.

Of the Pleurisy

1st Rheumatism The Rheumatism does sometimes produce Pain in *of* Side like *of* Pleurisy; this Pain is increased on distention & produces difficulty of Breathing; but it is wholly diff: from *of* Pleurisy & does not terminate like it — In the Pleurisy *of* Pain is in *one point*, but in *of* Rheumatism it occupies *of* whole & is a kind of a distensible pain, nor is it so acute as *of* Pleurisy — Besides, in *of* Rheumatism other Parts are affected & *of* in *of* first place, it is common for it to arise in *of* Extremities & to be bro't to *of* Trunk by Metastasis.

2nd Hysterical Pains. There is a particular state of *of* Body in w^{ch} all *of* symptoms of *of* Pleurisy are imitated, but not in their progress & terminatⁿ; in *of* Hysterical women there is frequently *of* appearance of great Inflamⁿ & in a few hours it entirely goes off — so *of* Pleurisy is imitated in this manner; a Pain arises in *of* Side, produ^g difficulty of breath^g, but tho' it occupies *of* same part, this Pain is by no means Pleuritic — It may be distinguish'd to be *of* Hysterical by its inconstancy; the Pleurisy is a constant pain unless there is some Cause administer'd to lessen it, but the Hysterical Pain is very inconstant ris^g in a short time to a great height, & abat^g as suddenly. — This further distinguish'd from *of* Pleurisy by *of* Pulse, w^{ch} in Hysterical complaints is very soft, & sometimes *of* Pulse is not alter'd, & w^{ch} there is an alteratⁿ produc'd, its quickness with^r either strength or hardness.

3rd Pains in the Intestines Sometimes Pain in *of* Intestines w^{ch} take place either from Inflamⁿ or a spasm have been mistaken for *of* Pleurisy; some of *of* Intestines lie under *of* left ribs & Pain in *of* part of *of* will prevent *of* Inspiration from being full — These Pains may be distinguish'd from *of* Pleurisy by *of* situation of *of* Place, if *of* Pain lies below *of* short ribs we may suspect *of* seat of *of* Disorder to be in *of* Intestines, but if it arises high towards *of* Clavicle we may be sure *of* This cannot be *of* Case — The manner of Respiratⁿ also shew^s *of* difference, in *of* Pleurisy *of* Part endeavor^s to keep the Thorax as quiet as possible, but in *of* Inflamⁿ of *of* Intestines he moves these chiefly Again, *of* Pulse shew^s *of* difference, in an Inflamⁿ of *of* Intestines the number beat^g constant

Of the Pleurisy

Again, in an Inflammⁿ of the Intestines, if Pain is more acute than in the Pleurisy, the Pulse is very small & quick, & of Extremities are generally cold.

Cure

by Evacuatiⁿ Care is best promoted by Evacuatiⁿ, & if we are not to trust to the Securiⁿ of Blood & phlogistⁿ — Evacuatiⁿ from the System in general are much more powerful here than in any other Inflammⁿ. — The natural Method is very apt to disappoint us

— the Sp^{rt} is not so great nor certain as in the Peripneumony, & it seldom prevents the Disⁿ from coming to a suppuratⁿ. — Bleed^g in large quantities is better if small repeated bleed^{gs}, sometimes if Disⁿ is cur'd by one copious bleed^g; by this means we diminish if Disⁿ so if it is easily carried off by Sp^{rt}, or by other means if we shall presently shew.

We are therefore to begin with bleed^g of Patient if strong from 20 to 30 ounces in this case if Patient is to be laid in bed with his Head rais'd, if there may be no difficulty of Respiration; & then he is to be kept quiet if no fresh stimulus may be applied. — If if Disⁿ returns again, we may take away a small quantity of Blood, because if Pat^t can't bear such another copious bleed^g, but we sh^d take as much away as he can well bear — We can't apply any other Evacuatiⁿ Some have practis'd bleed^g in the Part affected by Cup^{ps}; we rather think this is of service, for if Inflammⁿ is increas'd by such a number of wounds; besides, as you are oblig'd to expose the Part to the cold in performing the Operatiⁿ you may do more harm if good by Cup^{ps}.

Purgatives

Purgatives also, by bring^g a greater quantity of Blood on the Th^{rs} & Abdomen may do mischief, tho' if Applicatiⁿ of gentle Laxatives as they remove the Excess are of service.

Med^l relax^g Cap^l

Med^l relax^g of Capillary Vessels are of great service, so if Pleurisy has been cur'd by if Applicatiⁿ of Antimonials & Waller's Root; but we need not wholly depend upon them.

Of the Pleurisy

While if Inflammⁿ is running high & we are empty^d of vessels, we may give Neutral Salts, because smolies have been supposed to increase of Inflammⁿ; but perhaps this is more from Theory than practice — W^h evacuations have taken place, if Smolie Tartar has been very effectually applied.

Blister

Another means is, to raise an Inflammⁿ near of Part affected — Blisters have a great effects in this Inflammⁿ as in any other whatsoever; but we w^od not apply y^m till after of inflamy Diathesis is subdu'd. — Not only blisters, but other Stimuli have been apply'd such as Crassie volatile & Thall.; these have sometimes cur'd of Disorder with^o Bleed^g; but we w^od not recommend this practice, but w^h plentiful Evacuations have been made, they are very effectual in y^e Cure of the Dis^e. — These are y^e Remedies to be apply'd w^h there is no Fever. In y^e meantime we must attend to y^e spit^g; if y^e Cough is with^o any spit^g, it is more violent. — The Evacuations, & Med^l produce y^e agreeable Circulatⁿ to prevent of Expectoration from taking place, but we are to promote it as much as we can consistent with other methods, tho' we do not expect much more from it than to relieve of Cough, Stimulat^g salub^r & such as cover of Mucous Membrane are here to be us'd as directed in y^e Peripneumony.

w^h Fever present
Bleed^g strongly.

In the next Place, Let us suppose y^t if Fever is not entirely carried off; we must then alter our method, for we have now two Dis^e to take care of, y^e Fever & Pleurisy. We must take care not to weaken our Pat^t too much, we must bleed so far as to prevent a Suppuration, but not so plentifully as if the Fever had not been present: the Inflammatory Diathesis in this case is much sooner reduced, because y^e Fever itself has a tendency to weaken the System; as soon as y^e Inflammⁿ goes off & if Pulse becomes soft, you can do no good by bleed^g. — You are now to depend on the most powerful Med^l produce agreeable Circulatⁿ, & these may be apply'd from the begin^g.

Of the Pleurisy

By Blisters Blisters are here of great efficacy — we are also to depend more on Spitz than
 By Expectorant if of Pleurisy was free from Fever. — We will suppose if of Pleurisy is usually
 diminished, but if Fever increases considerably, & puts on a tertian Type, & there are
 mod. mod. exacerbations on the Alternate Days; in this case, we are to give several Doses
 of Med. producing equable Circulatⁿ on if being before if Exacerbatⁿ takes place
 We are to neglect any trifling Pain if may be remain^g & attend to if support^g
 of if strength till such times as if Exacerbatⁿ become more & more irregular &
 at length entirely leave if Patient — Blisters may be also apply^d on the wing
 in case of greatest Exacerbations happen.

if other Inflammⁿ There are other Inflammⁿs besides these already mention^d if sometimes take place
 in the Thorax, such as if of Mediastinum, w^{ch} is not attend^d with such
 violent symptoms as if Pleurisy; the Pain here strikes slantways to if back
 or shoulder; nor is if Pain increas^d on Inspiratⁿ, nor is it attend^d with
 so great a degree of Inflam^y Diathesis — In other respects if History & Treatm^t
if Dis^e is if same with if of if Pleurisy.

if Pericardium The Inflammⁿ of if Pericardium, but seldom happen^s; it is attend^d with considerable
 Pain in if Region of if Heart, if motion of if Heart will be considerably affect^d
 thereby, & if Inflammⁿ being communicat^d to if Heart, if muscle loses its Mobility
 & if Patient is thereby destroy^d — A very pungent Pain ab^t if Heart is if only
 symptom if has been given of this Dis^e. — tis evid^t if we must use if
 Means direct^d in if Pleurisy with if greatest freedom in this Dis^e.

if Diaphragm The Inflammⁿ of if Diaphragm is more violent than if Pleurisy; the
 Pain is felt both in Inspiratⁿ & expiration; & its great vicinity to the
 Stomach produces sickness, & if the Pain is plac^d on if right side the right
 shoulder is affect^d. — It requires the same treatm^t with if Pleurisy.

The Inflammation of the Intestines

The Inflammation of the Intestines

The Intestines are exposed to the effects of Stimuli of diff: kinds, so if we might expect from a variety of causes a variety of Inflamm: would take place; this is of course. But there is one kind of it does not come under our notice at present, viz, of Inflamm: of the mucous membrane, or of the Glands of the Intestines — we are now to cons: of Inflamm: of the exterior coats of the Intestines, which is extremely different from the former; if one occupies but a small part of the Intestine but the other a much larger space; again, an Inflamm: of the mucous membrane is attended with a large secretion from the Glands, with the other is not — we know, if a Purgative stimulates the Intestines & produces a larger secretion from the mucous membrane & the Glands there; if we apply any considerable Stimulus there, they will obtain the same effect; some indeed do not only produce a secretion, but also an Inflamm: of the Part; this is the effect of the administration of Scammony frequently has.

We should expect if Cold applied to the surface of the body would more frequently produce an Inflamm: in the Intestines than in any other part, because there is so great a quantity of blood capable of being thrown on it. But this effect is in a great measure avoided by a great secretion arising in the mucous membrane; or if the membrane is inflamed & in consequence therefore a large secretion takes place — in the first case, there is only a simple Purgation takes place, in the latter a Dysentery is produced.

Cause

Inflamm: of the Intestines are sometimes produced by Cold — Subst: lying in the Intestines, of itself, such as hard Faeces, or any solid matter lying in the folds of the Intestines may produce an Inflamm: — Mercury is also sometimes collected in considerable quantities in some of these folds, with any solid subst: it can't pass thro' the Intestines, may prove the cause of Inflamm: — sometimes, very viscid Subst: especially such as are astringent, such as Metoline salts have produced Inflamm: of the exterior coats.

Of Inflammation of the Intestines

The Interoception of one part of Intestine into another is also a cause of Inflamm. — Lastly, if Inflammatory Diathesis take place in Fever, may bring on an Inflamm. of Intestines as well as of any other part.

The Intestines of all other parts of Body are of most sensible, & this sensibility produces different symptoms from most of those of take place in Inflam.

Diagnosis

Intense fixed pain
with remissions

There arises a considerable Pain in Intestine, w^{ch} pain is fix'd in one particular Point & spread from thence to other parts — This Pain does not gradually increase as in most other Inflammations, but has its Exacerbations & Relaxations — The

peristaltic Motion prop^g of Contents of Intestines against Inflam'd part produces considerable pain; for this Motion is in some measure ceas'd, then the Pain abates also; these remissions are more sensible at begin^g, but towards later end, if Pain is so exquisite as not to be felt in its different degrees.

The swell^g of Inflam'd Part & other symptoms all of it are not to be observ'd as Parts are hid by Integuments of Abdomen. — In consequence of

quick, hard Pulse

this violent Pain of Heart is stimulated to very quick Contractions, the Pulse beats to 130 or 140 Strokes in a Minute, & becomes small, as all such quick Pulses must be; for if Heart contracts immediately on a quantity of blood thrown in, it can't thro' out so large a quantity as otherwise it might. — The Pulse is hard & not easily compress'd, but free from irregular w^{ch} accompanies other Inflammations. — The whole of Functions of Viscera in Abdomen are

Swelling at Stomach

affected, particularly a violent distress at Stomach, especially if any substance is thrown into it. — From great Stimulus applied to Abdomen, a great quantity of Blood is thrown into it, in consequence of w^{ch} the Excrimities become

Redness of Lips

Weakness of Strength

contracted & cold. — There is an immense exhaustion of Strength, in consequence of which many have destroy'd their Patients by apply^g stimulating Subst^s to support the Strength, instead of us^g Evacuations.

Of Inflammation of Intestines

Cathartics

There is also a constipation of the Belly, except w^h Inflammⁿ is very high up in Intestines, in w^h case there may be a plugging. — These symptoms

Delirium Convulsion

are followed by a Delirium together with convulsive Contractions of whole Body. — This Inflammⁿ is extremely liable to terminate in Gangrene & Modificatⁿ, as if Manure Fibra will in this case strongly contract y^e blood & act in y^e same manner as if they were ty^d by a Ligature so that nothing can pass thro^g Intestine

Prognosis

This Inflammⁿ is of quickest of any other in its termination frequently destroy^g y^e Patient in 12 hours, & seldom continuing for 36 hours. — It seldom goes on to suppuration, if it sho^d, & chances to break into y^e Intestines, y^e Pat^t may chance to escape, but if it sho^d burst into y^e Abdomen y^e Pus will spread its destructive effects among the Bowels, & y^e Patient dies. — But there is not one Instance in 500 in w^h an Abscess is form^d; y^e Patient beg^s destroy^d either by y^e Delirium occasion^d by y^e Pain, or by y^e Gangrene.

Of y^e Nat^l Method of Cure

Sometimes y^e Inflammⁿ goes off by y^e evacuation of y^e Mucous Glands — thus we find sometimes in y^e Spring an Inflammⁿ of y^e Intestines takes place with y^e usual symptoms accompany^g it, but a Purg^g comes on, w^h makes a total alteration in the Dis^e, this we shall speak more particularly of w^h we come to treat of y^e Dysentery.

— not to be depend^d on

With regard to y^e Natural Method of Cure by y^e section of y^e Mucous Glands, it is dangerous to attempt it, at least till y^e Inflammⁿ is in some measure remov^d.

Evacuatiⁿ by Purgatives provided they do produce a suff^t discharge by Mucus may carry off y^e Dis^e; but they frequently occasion a great secretion above y^e Inflam^d Part, this presses on the Part affect^d & increases y^e Inflammⁿ; these are very dangerous, therefore exhibited in y^e begin^g — we do not speak now of y^e Inversion of the Peristaltic Motion of y^e Intestines, whereby y^e Feces are forced into y^e Stomach, w^h is a Dis^e totally diff^t fr^m w^h we are now speak^g off, in y^e case we must get rid of y^e harden^d Feces as soon as we can.

Of Inflammation of the Intestines

But where we have not reason to expect such a quantity of indurated Foci, Purgatives are not useful, — at least, there must be an applicatⁿ of other means of resolution.

By Bleed^g

Bleed^g from the system in general is not what we should principally depend on — there arises a considerable degree of Inflam^y Diathesis tho' if Pulse is small it is very hard, copious & repeated bleed^g frequently cure of Dis^e. — We see then in the first place to take away a considerable quantity of blood, & are not to be deceived by the smallness of the Pulse & the weakness of the Patient, for the Pulse becomes fuller on bleed^g.

Other means have been useful to produce evacuations from particular parts; the Ancients used Ligatures on the extremities to prevent the blood from being thrown in too great quantities on the parts affected; but this method is now quite laid aside, & we can't say wth effect it w^{ld} be attended with.

Pediluvium

A warm Bath for the Feet has been recommended; the effect of heat is to produce a circulatⁿ in the particular part; in this respect it may be useful, but the Part sh^d not continue the use of it a great while, or else the stimulus may be communicated to the whole Body & the Inflam^y Diathesis thereby be increased.

Mod^o relax^g of capillaries

Mod^o relax^g of capillary vessels are of very great use in the Inflamⁿ of the Intestines by throwing the blood on other parts of the Body, & may be used to good effect together with other evacuations.

Blisters have not been employ'd, but we suppose they may have good effects.

Purgatives after evacuations

Purgatives, after these evacuations may be useful; ~~but~~ they sh^d not be stimulant ones, but such as act on the mucous glands alone — If Purg^g is once produced then if Inflamⁿ is prevented from increasing, but to attempt to bring on a purg^g before we have reduced the Inflamⁿ has frequently been attended with the most fatal consequences. In this manner in wth we w^{ld} propose treat^g this Dis^e.

Of Inflammation of Intestines

It is necessary to shew in what manner in all this Dis^e is distinguished from other Dis^e.
 There is hardly any it has been so frequently mistaken; there are two Disorders
 it bears a considerable resemblance to it. — One is a flatulent Contraction of Intestines.
 In diff^t Parts of Intestines contract spasmodically they contain a quantity of Air
 betwⁿ y^e middle part of Intestine contract^d on this Air causes consid^l Pain,
 this is attended with quickness of Pulse & coldness of Extremities.
 Taking Blood away here will do mischief. — These flatulencies may be distin-
 guish^d by a Part be^g subject to flatulencies from whence we may suspect y^e
 this is now y^e case — but if y^e Part is not subject to y^m & this Pain sh^d come
 on at y^e hot fit of Fever we may cons^l it as an Inflammⁿ. — In an Inflammⁿ
 y^e pain is fix^d in one part; whereas in spasmodic Contractions y^e Pain is more
 liable to affect y^e whole of y^e Abdomen; it shifts from place to place, & to increase
 or diminish very suddenly — Besides, tho^{ugh} y^e Pulse is quicken^d in flatulencies
 yet not to y^e degree as w^h an Inflammⁿ takes place; nor is y^e prostration of
 strength so great nor is y^e Pulse so hard as in an Inflammⁿ.
 There is another spasmodic Contraction of Intestines w^h is full as liable to be
 mistaken for y^e Inflammⁿ. we are treat^d of as y^e former; w^h Intestines have been
 much weaken^d by long purging or by y^e applicatⁿ of prep^{ar}atⁿs of Lead, there
 is a contraction of Intestines takes place so as to press y^e sides of Intestines together.
 The dry Gripes is a pain as violent as y^e Inflammⁿ of Intestines; y^e Pulse
 becomes quick & small, y^e Patient becomes Delirious, & is sometimes destroy^d.
 — Bleed^g increases the Disease, y^e most powerfull Antispasmodics are here of service
 also the warmest spices. — But this last Dis^e never happens unless it be to those
 whose Intestines have been weaken^d by long Purging, by an Acid long contain^d in y^e
 Stomach, or y^e applicatⁿ of Lead or some other sedatives. — The Pulse here at first

Of Inflammation of Liver

is not affected tho' at length it becomes so in consequence of Pain; but then it is not hard as in an Inflammation: — by the hardness therefore we may distinguish it as there is an Inflammation from all other Disorders. — If of Pain is an Inflammation it is safest to suppose it an Inflammation when we are in doubt, & some Blood may be taken away with: any great prejudice; whereas if least degree of Spices administered in an Inflammation will certainly destroy. — Meds. producing equable Circulation are of Service in both cases; tis best to run on if safest hand; if we find ourselves mistaken & it proves a spasmodic Complaint, tis easy to alter our practice. Great Numbers have been destroyed by these Mistakes, I have myself known at least a dozen, & myself was likely to destroy a Patient wth a young Practitioner by this Method of admin^g warm Meds. in an inflammatory Case, beg^d decid^d by weakness of Patient.

Inflammations of the Exterior Coat of Stomach are attended with the same symptoms with inflammation of Intestines, but if Pain is more violent, e.g. Nausea is greater — it is more fatal, but seldom happens; it must be cured by very powerful Evacuants.

Of Inflammation of Liver

The Liver is a Part of it is defended from most of the Causes of Inflammation, so of Inflammation here do not frequently happen; no external Stimulus can be apply'd thereto; some Insects may indeed get into the Ductus Choleochus & thereby inflame it, this frequently happens in sheep. — The Causes of this Inflammation are, cold apply'd to the outward Surface of the Body, or some Distention, or Stimulus inwardly applied. — On cooling of Surface of the Body if Blood is thrown into the internal Parts, & upon the Liver as well as other parts, so if a considerable quantity of Bile is secreted, particularly in hot Countries, where the Body is weak & Irritable, very large Secretions happen from the Liver.

where in doubt abt
if cause safest to treat
it as an Inflammation

Causes

Of Inflammation of Liver

This secretion is found in *Hepatic Veins* & *of principal part of it Blood is accumulated*. These, particularly in those w^{ch} perform *office of Venies*, out of *Inflamⁿ* principally takes place in those *Vesels* of *communicate with the Hepatic Veins*. — The *Vesels* have considerable Room to distend wth so if we do not find this a common Distⁿ wth it be in warm Climates such as of *East Indies*. — The *Liver* being almost wth *distended* off a lax part, & of *artery* has room to distend itself, there is no consid^{le} pain felt; the *Pat^t* complains of a little uneasiness in *right Side*, & this uneasiness advances very gradually, so if it is frequently the 3^d or 4th day before Assistance is call^d in. — If there was no *Inflamⁿ Diathesis* before this Distⁿ took place, there is none produced thereby; the only symptoms are, a slight Pain in *part affected* produc^g difficulty of breathing together with a slight cough. — Sometimes a great quantity of *Bile* is secreted, & sometimes a quantity of *Blood* is thrown out into *Hepatic Duct*, so if sometimes *Blood* has come off by *Stool* or vomit appear^g of a dark colour.

Wth *external Membranes of the Liver* is affected, there arises a very acute pain with a consid^{le} *Inflamⁿ Diathesis* as in *Pleurisy*, but we very seldom meet with an *Inflamⁿ* affect^g this Part.

Accord^g to *different parts of this Viscus* if are affected, so diff^t symptoms appear; — if a considerable part is affected with *Inflamⁿ*, then there appears a large swelling on the right side; if it be *of Part* w^{ch} lies on *of Stomach*, then there is a consid^{le} *Swelling* attend^g this Distⁿ; if *of Part* w^{ch} lies near *of Ductus Cholydochus* is affected, *of Symptoms of a Jaundice* arise.

The Distⁿ continues gradually increas^g admit^g seldom of any method of Cure, but go^g on to *Suppuratⁿ*; but it is not liable to *Gangrene* nor produce any symptoms if speedily destroy *of Patient*.

If it suppurates, the *Suppuratⁿ* is liable to break in *three diff^t ways*. — In *of first place*, *of Liver* may grow to *of side*, & *of Pus* may form itself a *Abscess thro^g of External parts*.

where secreted

almost wth distendedlittle Inflamⁿ Diathesisacute pain wth of external Membranes affecteddiff^t symptoms attend^g to each of it

commonly suppurates & if in three ways

I & externally

Of Inflammation of Liver

2^d into Intestines In 2^d place, one of the Hepatic Ducts may be destroyed by suppuration & then the Pus will run into Intestines — And lastly, it may make its way thro' the Internal Substⁿ of Liver, & then Pus will run into the cavity of the Abdomen. — The two first methods of suppuration admit of a cure, but the last is fatal, for Pus ferments with the other viscera of the Abdomen & produces ulcerations w^{ch} destroy the Patient. — W^{ch} if Abscess opens externally

Seldom granulation
Flesh produced

a quantity of Pus mixed with Blood comes out; for the most part, no granulation or Flesh is generated, but a large discharge is made on whereby the Patient is so weaken'd y^t he at length dies — The same frequently happens w^{ch} the Pus breaks into the Intestines, there arises a purging but not a very violent one tho' it gradually exhausts the Patient & at length destroys him — To prevent however by proper methods to produce a granulation & to cure the Patient

Cure

We come now to shew of manner in w^{ch} this Dis^e must be treated.

Evacuations, as there is but little Inflammatory Diathesis, are of no ^{very} great use here; We have before observ'd, y^t where Inflammatory Diathesis was considerable, evacuations from the system in general were of considerable service, but where there was no such Diathesis such evacuations are of no great use; Taking away Blood from the arm is here of little service; tis however of principal Means we have in curing of internal Inflammations; by this method therefore we attempt to weaken the action of the vessels in the Liver, but it seldom succeeds. — Med^l producing Equable

Evacuations of no
use however
medicinal.

Med^l prod^g Equable

Circulation are here of the greatest service w^{ch} given in considerable quantities, as they throw off Blood on the rest of the system. — Blesters apply'd to the feet are also of considerable use. — We can't produce any evacuation from the Part, & if we could it is probable we should do harm thereby. By bringing a greater quantity of Blood on the part affected. — The Warm Bath may be of some service. The Belly is also to be kept open with gentle Laxatives.

Blisters

Warm Bath
Laxatives

Of Inflammation of Liver

As Blood is not very efficacious in this Dis^e, & as tis commonly of third Day before Apistance is call'd in, this Inflammⁿ commonly goes on to Suppuration, w^h the Suppuration is produced & we find any external fluctuation we are to open if Abscess immediately. — Tho' we can't evacuate of Pus into of Intestines, y^t it sometimes it happens of Liver grows to of Intestines, whereby of Pus forms itself a passage y^t way.

Granulⁿ modus w^h of Abscess is opened, & next thy is to produce a good granulation; this is done by by Bark & Mercury, these are two of y^e most powerful mod^s y^t we know of to produce Granulations in Ulcers, & of most powerful means are here to be employ'd, for if of Abscess continues to form a large vacuacion we can't produce ~~any~~ granulation by any Method w^h ever. — Mercury has been most commonly given in this case; in Bengal it is given in a quanty suff^t to salivate of Patient, by w^h means if Ulcer has sometimes fill'd up again & if Patient has been heal'd — But here of Bark has also been given with very great Advantage. — w^h we give of Bark with a view to produce granulⁿ especially in a very large ulcer, tis necessary to be given in large quantities; an Ounce or two sh^d be given in twenty four hours — After of Granulatⁿ is begun, it may be continued in less quantities. — For my own part I sh^d rather prefer of Bark to of use of Mercury; for a quanty of Pus is absorb'd into of Habit w^h produces a Heetic, & of Stimulus of of Mercury increases of w^ong Paroxysm; besides, Mercury weakens of Patient; But Bark has none of these ill effects — I have known two or three cases where in Suppuration form'd in of Liver were cur'd by of Bark.

If the Pus is evacuated into of Cavity of of Abdomen, I don't know y^t we can be of any service to of Patient, we can neither take it out, nor cause it by any Method to be absorb'd.

Of Jaundice I have observ'd y^t w^h an Inflammⁿ of of Liver comprehes of Ducts a Jaundice is produced; some have asser'ted, of w^ong Inflammⁿ of of Liver will produce a Jaundice it is certain however y^t large Suppuration comprehes of Biliary Ducts have produced it.

Of the Jaundice

The Bile is not form'd till it arrives in of Hepatic Ducts, there is none found in of Bile not found branches of of Vena Portarum — It is not a fair experiment to try it in dead animals, in of Bile not found because of Bile may transude thro' of Gall bladder into of surrounding parts, but there is none found in living Animals. — Besides, this Bile is capable of being

secreted by all of different Glands of of Body w. once it gets into of Blood, the Eye, of Tongue, of Urine become yellow; if Bile was contained in the Blood it could not be secreted by of Liver alone, but by all the diff't Organs; from whence we may conclude, of it is form'd in of Liver alone & not in of blood vessels. Now whatever compresses of Ductus Choledochus or any of of biliary Ducts, will cause of Bile to be accumulated in consid. quantities there w. pass from thence into of Blood vessels produces a Jaundice. — The causes producing this Obstruction

Jaundice how produced

The causes
indeeds

Gallstones

are various, such as any swelling in of surrounding Parts w. compress of Duct so as to prevent of Bile, either totally or partially from passing into of Intestine.

In of Gall bladder there is a consid. quantity of of mucous part of of Bile separate, w. is commonly found in of bottom of of bladder in of form of a blackish Powder, this concretes into a hard mass, & sometimes stops up of Ductus Choledochus & prevents of Bile, or of greatest part of it from passing into of Intestine. There are other concretions found in of Gall bladder of of mucous & calcareous kind.

spasms

The Ductus Choledochus may be obstructed also by a spasmodic contraction where there is such a contraction prevails in of Intestines, & thereby bring on a Jaundice, thus in Fevers we have frequently spasmodic Jaundices arising. — It has been supposed by some of inspissated Bile may produce an Obstruction by not being able to pass into of Duodenum; but there are very few Instances of this kind. Most Physiologists have meant by this inspissation of of Bile, of mucous part separate. If the Ductus Choledochus is stop'd up, there is a consid. Accumulation of this kind of matter in of Gall bladder, there arises a considerable Pain in of part at other times it is not so violent.

Of the Jaundice

Use of Bile

Bile w^h thrown into of Intestines produces two effects; in y^e first place, it destroys the Acidities of y^e Food; & in y^e next place, the Resinous Part stimulates the Intestines so as to keep up their Peristaltic Motion. — These two effects are lost w^h if Bile is not carried to y^e Duodenum; Acidities prevail, & sometimes violent purg^gs take place — If this purg^g is not present, 'tis necessary y^e of Acid sh^d be destroy'd by unit^g it to y^e Bile in order y^e a proper quant^y of Chyle may be generated, for want of which y^e Patient is greatly weakened.

Symptoms

For y^e most part y^e Patient becomes costive in consequence of y^e Peristaltic Motion not b^e kept up; the Faces become more purplish than natural, as well as of a diff^t colour; the Appetite is lost, & Digestion is not carried on — Either a Purg^g takes place in consequence of y^e Acid, or a costiveness for want of the Bile. —

The Bile b^e thus obstructed in its passage is either push'd back into y^e blood vessels, or rather is absorb'd; in consequence of w^h 'tis accumulated in y^e Liver, & is secreted by all y^e Glands of y^e Body. This brings on an universal uneasiness or restlessness, & increases often y^e fever. Exacerbation consid^{ly}; & if this happens in Fevers, it prevents y^e Hot Fit from b^eg so regular as it ought to be. —

If y^e Bile is not thrown into y^e Intestines y^e Pat^t for want of nourishment becomes much emaciated, & is at length destroyed by weakness. — But commonly y^e Dis^e proves its own Cure; If y^e Obstructⁿ

Is commonly cured itself

is owing to an Inflammⁿ, as soon as y^e Suppuratⁿ takes place, y^e swelling becomes much softer than before, till it is no longer capable of obstruct^g y^e Duct. — If it is concretion of Bile y^e stops y^e Passage, the Bile must press against y^e side of y^e Duct as well as against y^e stone, till at length y^e stone is thrust by the force into y^e Duodenum — If it is owing to a spasmodic contraction, this does not continue long, only in this case y^e Dis^e is very apt to return again.

Of the Jaundice

Bileous stools found
in most of the Dist^s

Obstruction is removed, if Bile generally gets into of Intestines in considerable quant^y & 2 or 3 loose stools of an very bilious are produced — the Digestion returns, the Bile is gradually evacuated out of of Blood vessels, but it is generally 5 or 6 days before of symptoms entirely go off.

Causes

With regard to of Cause of this Dist^s, it is sometimes difficult to remove of Obstructⁿ.

If Inflammⁿ compels of Ducts is of Cause, we are to endeavor by of Methods already prescribed to remove it. — If a Schirrus causes this compression, we know of no method to resolve it. — If a Stone is lodg'd in of Duct, we can't dissolve it, as no med^l we imagine will unite with of this in so as to render it soluble in water; we are therefore by Evacuatⁿ to force it forward into of Duodenum. — If a Spasmodic Contractⁿ produces the Dist^s we are by of help of Antispasmodics to remove it.

Causes how to be distinguished

We are to judge carefully of of particular Cause, w^{ch} produces of Dist^s as there are diff^t means to be us'd for of removal of of Cause. — If an Inflammⁿ or Schirrus produce it there is commonly an external Swellg to be felt before of Jaundice comes on. — Spasmodic Contractⁿ are known by their go^g off suddenly. — If a Gallstone is of Cause, of Obstructⁿ comes on gradually, as of Stone gets farther into of Duct, of Bile is less & less secreted; this is also of Case where swellgs take place; but a spasm takes place at once, & as suddenly gets off, the Pat^t throws up a considerable quant^y of Bile, & presently of vomit^g is wholly stop'd. — tho' Stool continues but for a short time, yet it frequently returns; this may be judg'd of by of evacuations w^{ch} greatly vary, tho' of yellow colour remains.

Concerning supply
the deficiency of Bile

The Effects of of Bile in of Blood vessels can't well be avoided; indeed it does not do much mischief there; we can only endeavor to keep up of Digestion, & of peristaltic Motion of of Intestines. — 'Tis tho't by some, of of Want of Bile might be supplied by of applicatⁿ of Sage or doird Gall; but I don't know if this will do; for of destruction of of Liver is not suff^t. otherwise Calcareous Earth would answer of End.

Of Inflammation of Urinary Passages

Where of Acid is accumulated in a considerable quantity it must be destroyed; but I think of Soap & Bile do rather mischief by clogg^g of Stomach. — The Principal means we can apply are strengthening Meds whereby we prevent of Stomach from being too much weaken'd by of Acid, these are ^{Bitters, together with} the Bitter & Stomach Purgis whereby of Belly is to be kept open so as of a stool may be procur'd every day.

Strengthening Meds
& Stomach Purgis

Stomach

If a Stone is lodg'd in of Duod. violent Stomach will force it into of Duodenum — Other Meds have had of reputation of cur^g this Dis^e w^h Nature itself has perform'd of Cure. In Intermittents w^h there is a considerable quantity of Bile in of Blood vessels, of Inflammⁿ becomes less perfect, in w^h case we are to wait a little till of Bile is evacuated before we give of Bark to advantage, tho' it is seldom of it produces such effects as to prevent of efficacy of of Bark.

Of Inflammation of Urinary Passages.

Cause

The Kidneys are liable to be inflam'd by all the other causes of Inflammⁿ; there is likewise another Cause here w^h does not take place in other parts of of System w^h are concretions acquiring sometimes a considerable degree of hardness w^h by rub^g against of internal part of of Pelvis produces consid^l Inflammⁿ in of Ureters & Bladder. As this is of principal Cause of this Systemⁿ, we shall endeavor to explain its natural Effects.

Of of Nature
& formatⁿ of Calculi

of two sorts

There is in of Urine a considerable quantity of calcareous Earth, so of frequently a Pint of Urine will yield half a Dram of it, w^h readily unites w^h of vitriolic Acid & forms Stenites; this calcareous Earth separates from of Urine either in of Kidneys or Bladder & concretes so as to form a stone. — There is also on of internal part of of Ureters a viscous membrane w^h secretes a quantity of Mucus more of soft to defend of Part, w^h being immersed in Urine in w^h viscous salts are dissolved, it loses its Water, hardens & thereby forms a stone. — Some suppose of of coagulable Lymph may be thus separated & become a stone; but this is not certain. A Stone is not form'd at once, but gradually & in coats, & there sometimes there is a mixture of Mucus & calcareous Earth.

Of Inflammⁿ of the Urinary Passages

The greatest part of the Stones yet are found in the human body are composed of Mucus for they dissolve in a solution of Crustic Alkali, w^h calcareous Earth will not do; they are also inflammable, & have a small quantity of Pores in the same manner as dried Venum. — In these experiments there appears no calcareous Earth. But these Stones yet contain calcareous Earth have it crystallized; this Earth is capable of crystallization w^h it begins to congregate from a powder; this happens also in Marble. — We find such crystals in these Concrements. — These Stones are first found in the Kidneys & descend from thence to the Bladder, where they receive additions so as to become much larger; sometimes they are smooth & sometimes rough, sometimes very compact & solid & at other times of a very lax texture.

How they produce
Inflammⁿ?

w^h they are either rough or in considerable quantity they stimulate the Kidney or parts of the Pelvis & produce Inflammⁿ; they sometimes penetrate into the internal substance of the Kidney, & sometimes are lodged only in the Pelvis; sometimes they tear or wound the Kidney; sometimes in passing down they stick fast in the Ureter so that the Urine is prevented from descending either in whole or in part; the Urine thus accumulated pushes forward the Stone till it gets into the Bladder; w^h in the Bladder, it frequently produces an Inflammⁿ of its internal coat: it is liable to wound it, & stimulates it to frequent contractions, & thereby brings on a Strangury; it often applies itself to the mouth of the Urethra & thereby prevents a flow of Urine.

Symptoms of a
Stone in the Bladder

We can tell w^h a Stone is actually in the Bladder, by its having been in the Kidney; w^h there is a Pain in the Back shooting to the lower part of the Pelvis, from the Stone's compressing the Nerve yet goes down to the Thigh in its passage thro' the Ureter; by a Pain being felt in the Bladder, & the Urine evacuated from thence; by the Suppression of Urine; & lastly, by passing a sleek Instrum^t into the Bladder, & if the Stone strikes against it w^h gives a feel of hardness. — Care must be taken not to put the point of the Instrum^t or else you may be imposed on with regard to the feel.

Of Inflammation of y^e Urinary Passages

Cure

I now proceed to shew you y^e means of Cure. — Several diff^t subst^s have been apply^d in order to dissolve y^e Stone — It has been conceiv^d, y^t we can throw subst^s into y^e Stomach wth pass^g thro^g y^e Blood vessels to y^e Kidneys will dissolve y^e Stone.

Fixed Alkalies
considered?

The only subst^s y^t can do this is ^{Fixed} Caustic Alkali, for concentrated Acids cannot be got into y^e Stomach & much less into y^e Blood vessels. Fix^d & Alkali & Quacklime will dissolve it, but it is absolutely impossible to get them in a degree of concentration there, for they will combine with y^e Mucus of y^e Stomach & Intestines, in y^e first place, they will unite with y^e Acid of Phosphorus & detach y^e Volatile Alkali from y^e Ammoniacal salts; & lastly they w^od as soon dissolve y^e Bladder itself as y^e Stone contained therein — We know by ex^{pt} y^t upon inject^g Lime water into y^e Bladder, y^e Mucus of y^e Urethra & Bladder w^old be dissolved y^t y^e operation w^od not be repeated. — There is another Method of dissolv^g these Concretions, w^{ch}

Dissolved by Putrefaction?

is to dissolve y^m in warm water, in consequence of w^{ch} y^m will putrify & fall down in fleshy subst^s — The question is, whether we w^od reduce y^m to such a state of putrefaction in y^e human Body as to bring on a dissolution — This seems to be possible. — They are in y^e Bladder immersed in warm water, but this water is loaded with a quantity of Mucous Salts w^{ch} prevents y^m from putrify^g, if we w^od prevent such a quantity of Neutral Salts from mix^g with y^e Urine, y^m might thus be destroy^d — If y^e Patient drinks large quantities of water, & uses a Diuretic along with it, salutary effects might be expected; any Diuretic y^t might bring a considerable secretion into y^e Bladder might ans^r y^e End, & y^e Calcareous Earth & Alkali probably can be of service no further y^t y^m promote such a secretion, & as they promote thirst & cause y^e Pat^t to drink consid^{le} quantities of water with them — I think y^t other Diuretics have been of as great service as these. — There is one disadvantage in tak^g y^e fixed Alkali, w^{ch} is, y^t it is constantly detach^g y^e Volatile Alkali from y^e Ammoniacal salts, so y^t a Person is in y^e same state as if he had been tak^g quantities of Volatile Alkali

Disadvantages of
y^e fixed Alkalies

Of Inflammation of the Urinary Passages

Besides, by its constant Stimulus it renders the Body very irritable. It has also been directed to take only animal Food with this Med^l: whereby a consid^{le} quantity of Putrefaction has been bro't on: This Putrefaction may assist in the dissolution of the Stone, but greater ill consequences have resulted from it, Putrefaction than even from the Stone itself. — Other Med^l: have been proposed with a view to prevent the effects of the Stone while lodged in the Body; Oils, & Mucilages have been given for this purpose; but Med^l: destroy^g Irritability seem best to answer this end; if Uva Ursi seems to be of this Nature, which has been found to be of considerable service, in taking away the Pain, tho' the Stone remain'd.

— of prevent^g this
effects by destroy^g
Irritability.

Of Lithotomy

But the best way in general is to cut it out; & the best way of performing this Operation is to cut every thing & to tear nothing, as a wound made by a sharp Instrument is soon healed. — In old Patients whose wounds heal wth difficulty this Operation is perform'd with danger; but in young People it frequently succeeds. — we need not describe the Operation. — sometimes the wound heals with great difficulty in consequence of the Urine having a quantity of Neutral Salts which stimulate the wound. — The Bark is of service in this case as well as in other wounds.

— to prevent the
fresh generatⁿ of stone

After the wound is healed, then we are to endeavor to prevent a fresh Concretⁿ by direct^g the Patient to the use of Diuretics, such as the Native vegetable Acid, the Umbelliferous Plants &c. — Care must be taken that the Food be free from Neutral Salts, otherwise a fresh Stone is generated. — Another method of avoiding its generatⁿ is by the use of Strengthening Meds; for there is frequently a considerable quantity of Mucus thrown into the Cavity of the Bladder in consequence of weakness.

Of Passage of Stone
thru the Ureter

The Ureter is a very tense part, & wth a Stone gets there it occasions great Pain w^{ch} ascends from the Back to the Bladder; This produces quickness of Pulse, & sometimes Delirium; commonly the Stone is pushed on gradually, till it arrives into the Bladder & then the pain goes off.

Of Inflammation of the Urinary Passages.

how applied

In order to assist the Passage of a Stone, we make use of Diuretics, & of Spasmodic Oils, such as Oil of Turpentine in Glysters; By increase of quantity of Urine if Stone is pushed down. Opiates may be made use of to quiet the Pain, but if the Pulse is hard his necessary to take off some Blood before Opiate is applied. The warm Bath is also employ'd to Advantage; perhaps there is a quantity of Water absorb'd which passes to the Kidneys.

Is sometimes a cause of Inflammation here

An Inflammation of the Kidneys is also occasion'd by the Application of Cold & an Inflaming Diathesis being present in the Body; but as the Kidney is a glandular form'd there is a great Secretion, this Inflammation seldom takes place except where there is a Stone present.

Many times Inflammation of the Kidney has been mistaken for Inflammation of the surrounding Parts such as that of the Psoas muscle as has been prov'd by Dissections.

Diagnosis & Prognosis

In an Inflammation of the Kidney there arises an acute pain in the region of the Kidney, producing Inflaming Diathesis, great quickness of Pulse, coldness of the Extremities, sickness at the Stomach attended with Delirium. — The Disease proceeds on in the same manner as other Inflammations. — It either produces such a degree of Inflaming Diathesis as destroys the Patient; or it ends in a Gangrene; or it proceeds to suppuration.

of suppuration
differs ways evacuated
naturally

The Suppuration may evacuate itself in 3 different ways; sometimes the Kidney adheres to the outer Parts & the Abscess has pointed outwardly with which there is a fluctuation felt, may be opened. — This Ulcer on account of the Neutral Salts contained in the Urine has made it difficult of cure; to avoid the effects of which we apply the Bark to the Stomach in considerable quantities.

into the Urine

Sometimes the Pus is evacuated into the Urine; this is known by the Pus being mix'd with the Urine. — Sometimes a secretion of the mucus lining the Bladder may be mistaken for Pus; but they may be easily distinguish'd, for the Pus lies at the Bottom forming an even sediment, whereas the mucus has a flocky appearance. — The Ulcer thus form'd evacuates a great deal of matter, with at length destroys the Patient. The principal cause of which is that the Neutral Salts are apply'd to the Part, & prevent the rising of Granulaceous Flesh. — This is to be avoided by giving the Bark, & by depending the Part with mucilaginous Substances.

Bark applied for
heal the Ulcer

Of Inflammation of the Urinary Passages

Int. of Cellular Membr. If Pus shot into the Cellular Membrane is attended with very bad consequences, for it forms Exulcerations around of Kidney, & sometimes forms a passage thro' the Peritoneum into the Cavity of the Abdomen; this is known by a weight b^y felt in the Back attended with a Febrile Fever.

of Intest. of Water An Inflammⁿ of the Rectum is a very rare case; w^h it happens as it is a very sensible part, a violent Inflammⁿ Diathesis takes place & differs but little from an Inflammⁿ of the Intestines.

of the Bladder The Bladder is also capable of Inflammⁿ; not only from a Stone, but from other causes, w^h of Passage is stop'd up, it becomes considerably fill'd with Urine & thereby inflam'd. — This Inflammⁿ may take place also in consequence of an Inflammⁿ Diathesis prevail^g in the System. — This Inflammⁿ is very violent & attended wth consid^l Inflammⁿ Diathesis of Part b^y tense & sensible & haug many Muscular Fibres w^h contract y^r selves, & w^h there is a consid^l quantity of water contain'd therein, it compresses the water so, y^t it produces nearly y^e same effect as if a Ligature was apply'd, so y^t it is liable to Gangrene & Mortify & that in a few Hours. — Sometimes however it suppurates, & Pus forms a way either into the Bladder, or into the Cellular Membrane. w^h of last case happens, it produces disagreeable Ulcers; w^h sometimes however form a Passage thro' the Perineum.

We have thus describ'd various sorts of Inflammations; it wou'd be needless to enter on y^e Consideratⁿ of y^e Inflammation of all the other several Organs, as they may easily be understood from w^h has been said already. — Besides, we very seldom meet with Inflammⁿ of the Peritoneum, Pancreas or Spleen, it wou'd therefore be to little purpose to enlarge upon y^m. — We now pass on, therefore to y^e Inflammⁿ of the Mucous Membrane, w^h as it affects y^e Throat & Lungs has been call'd a Catarrh; y^e Intestines, y^e Dysentery; the Urethra, y^e Gonorrhoea benigna is indistinct or Flux Blas. — But previous to this, we shall treat of y^e Applacat of cold

Of the Application of Cold to y^e Body.

Of the Application of Cold to y^e Body

We have already shewn y^t many diff^t Inflamm^s have been produced by Cold apply'd to y^e diff^t Parts of y^e Body, & as this is y^e principal Cause produ^g y^e Catarrh & Symp^t before we proceed to y^e Considerⁿ of these Dis^t, we shall shew y^e manner in w^{ch} Cold acts on y^e Body to produce Dis^t. These are produced accord^g to y^e diff^t degree of Cold y^e are apply'd, & y^e diff^t states of y^e Body to w^{ch} this application is made.

A small degree of Cold apply'd produces a slight contraction of y^e Pores of y^e Skin, & y^e Blood is thereby thrown upon y^e internal Vessels, w^{ch} become in consequence thereof either expand^d or enlarg'd.

It is but seldom y^t Cold produces an Inflammⁿ of y^e Muscles; but wⁿ it is apply'd to y^e Face & Neck it produces an Inflammⁿ of y^e Mucous Membrane, & a Catarrh is produced. — If a greater degree of Cold is apply'd, then y^e whole of y^e Vessels on y^e skin, & those plac'd immediately below it are contract'd, & y^e whole of y^e Blood is thrown on y^e internal Parts, y^e Vessels of the Thorax & Abdomen, y^e consequence of w^{ch} is y^e y^e Mucous Glands of those Parts are affect'd, & if y^e Habit is not strong, there is a consid^l secretion from those Parts, & a Catarrh or a Diarrhea take place, but if y^e Path is strong an Inflammⁿ arises. — If y^e degree of Cold apply'd is great, not only y^e outward, but also y^e inward Vessels become contract'd, & a Fit of Fever is produced.

Wⁿ Cold is apply'd to y^e surface of y^e Body y^e Vessels of y^e Extremit^{ies} become contract'd, & this sometimes is y^e case when no Cold is apply'd to those parts. ^{lymphatics} & on y^e contrary wⁿ Cold is apply'd to y^e Extremit^{ies}, as happens wⁿ y^e bare Feet are plac'd on cold Marble, y^e Vessels thro' y^e other parts of y^e Body become contract'd also. — So y^t there is no necessity y^t Cold sh^d be apply'd immediately to any particular part to produce a contraction there.

But it is y^e sudden application of Cold y^t produces this effect; for if we cool y^e Body slowly & expose it gradually to a great degree of Cold, no ill consequence follows; y^e y^e Internal Vessels have time to dilate y^emselves & no Inflammation or greater secretion ensues. — Persons living in cold Climates have y^e Blood circulat^g in y^e internal Vessels & yet are in perfect Health. — Neither has Cold any effect if it is apply'd for only a short time, this is manifest in y^e case of Cold Bathing.

A slight degree of cold contracts y^e Vessels of y^e Body thrown on y^e Int^{er}

A greater y^e Vessels below y^e skin also

A greater still y^e Vessels contract'd Fevers y^e produced thereby

Cold acts on y^e parts when not immediately apply'd

Y^e y^e sudden application of cold produces y^e effect

Of the Application of Cold to y^e Body

If after a Person is exposed to cold suddenly, heat is apply'd to bring y^e blood to y^e surface of y^e body, no harm ensues. — In diff^t. Habits, diff^t. times are requisite to bring on a Dis^e by exposure to cold; in some 2 or 3 minutes will be suff^t, others require a longer time.

Diff^t effects according to
the heat of Body & Situation

Cold acts diff^{tly} on Parties, accord^g to y^e degree of cold, the heat of Body is in, or the degree of its irritability; cold may therefore be produced so as to act very powerfully, w^o we should not expect y^t it should act at all. — Cold always acts immediately on its application; those who therefore attribute a Dis^e to an exposure to cold made 5 or 6 Days before, are mistaken.

Cold is wholly relative

— Cold is wholly a relative thing; if a Person lives in 70 Degrees of Heat, & y^e on sh^d expose him to 50 Degrees, it has y^e same effect as if he lived in 50 Degrees & y^e on sh^d expose him to 30 Degrees. — Moreover y^e exposure of y^e Body to 10 Degrees of cold has

greater effect in hot
than in cold Climate
accounted for.

a greater effect in a hot Climate, than y^e exposure of y^e Body to 20 Degrees in a cold Climate. This depends on two evident Causes; in a great degree of Heat there is a vast quantity of blood circulat^g on y^e surface of y^e Body, and a very small degree of cold check^g this circulatⁿ will throw a great quantity of blood on y^e Internal Parts; whereas a Person living in a cold Atmosphere can have but little blood thrown on the internal Parts, as there is but a small quantity circulat^g on the external.

Another reason is, y^e Body is vastly more irritable in a hot Atmosphere yⁿ in a cold one, so y^t if there is a diminution of but 3 Degrees of Heat it is sensibly felt, & y^t more than 10 Degrees in a cold Atmosphere.

Cold apply'd to y^e
Body, & heat'd with effect

The Application of a cold Atmosphere to y^e Body w^h heat'd (as is y^e case w^h a Person goes from a warm Room into a cold one) is frequently y^e cause of cold; This is more peculiarly y^e case w^h y^e Body thus heat'd is expos'd to a stream of Air, for this blows off y^e Atmosphere of y^e Body (whereby it is defended as well as by y^e cloaths) & y^e cold Air is immediately apply'd thereto — Nor is it necessary to expose y^e whole of y^e Body to such a stream of Air, y^t blow on part of y^e Body thro' a crevice &c it frequently does more mischief than if y^e Body was wholly expos'd to it, because y^e heat in w^h the Body is still in, keeps up its irritability. — A vast many have contriv'd for this manner, by look^g out at y^e window, sit^g in a Chair where there is a current of Air go^g thro' sell^g near a chink in y^e wall, or between y^e door & y^e fireplace.

y^e stream of Air

Of the Application of Cold to y^e Body

caused by y^e Body We have been hitherto considerg y^e Cause of Cold as lodgd in y^e Atmosphere, but many times y^e Causes of Cold are lodgd in y^e Body itself; for there is a quantity of Respirable Matter continually evaporatg from y^e Surface of y^e Body, this water as it rises into y^e Air is dissolved in it & generates a degree of Cold; this will dissolve faster or slower accordg as y^e Air is saturated with a greater or less degree of water; if y^e Air is dry it will dissolve it readily, but wⁿ y^e Air is loaded with water, it evaporates very slowly, so y^t Persons are ~~then~~ in greater danger of Cold. — ^{It is a dry wind blowing from y^e Body} Winds blowg from high Mountains are cold & dry, & they must pass over a considerable quantity of water before they can be saturated; hence y^e East Winds blowg from y^e Mountains of Germany produce a Sense of Cold, & from this we are not defended in warm Rooms, nor even in Bed; hence Rheumatic Patients can tell in Bed wⁿ y^e Wind blows from y^e Quarter, y^e Insensible Perspiratⁿ being then immediately evaporated.

A moist Atmosphere is heated by y^e Body generates Cold Another Method is this, suppose y^e Air is saturated wth water (w^{ch} may be either Chemically dissolved or mechanically mixed with it) & a superfluous quantity remains floatg in it; if the Air by any means is heated, it will dissolve a greater quantity of water, (as water will dissolve a greater quantity of Nitre wⁿ hot, than it will wⁿ cold) and this greater degree of water dissolved will generate Cold; if a moist Atmosphere is applyd to y^e Body, y^e Air being heated by such an Applicatⁿ will dissolve a greater quantity of water, whereby a greater degree of Cold will be applyd to y^e Surface of y^e Body — Suppose a Person lives in an Atmosphere of 70 Degrees of heat; if the Atmosphere of his Body is Mechanically dry it will be heated to 80 Degrees; as cold Air is continually applyd, y^e Atmosphere of y^e Body is continually changing as it is risg upwards from his Feet to his Head; this may sometimes be seen ascendg like y^e Flame of a Candle; wⁿ y^e cold Air is applyd, it will be heated by y^e Atmosphere of y^e Body to y^e quantity of 5 degrees only, so y^t there will be 5 degrees of Cold applyd to y^e Body. — As the Evaporation of water produces a greater degree of Cold, we hence see how it comes to pass, ~~that~~ ^{that} Marshy Countries produce y^e greatest Number of these Diseases y^t arise from Cold — On the same Principle Moist Cloaths produce Cold, & that to a greater degree than any other Cause, for y^e Moist Cloaths by heatg will evaporate y^e water contained in y^m, whereby a greater degree of Cold is produced.

Moist Countries

Moist Cloaths

Of the Application of Cold to y^e Body

with being immediately apply'd to y^e Surface of y^e Body is attended frequently with y^e worst Consequences — besides, moist Cloaths more readily transmit Heat & Cold, so y^t y^e Cold of y^e Atmosphere is more easily apply'd, while the Heat of the Body is less retain'd. — It is not ^{therefore} always y^e Cold of y^e Atmosphere y^e causes Cold, for sometimes w^h y^e Atmosphere is hot, Cold may be generated on the Surface of y^e Body & then apply'd to it. — It may at first appear singular y^t we sh^d be thus constructed; but it sh^d be consider'd, y^t this Construction when Persons are not liable to take Cold, is productive of great Advantages, such as y^e most healthy.

Constitution & Irritability
renders Persons liable to Cold

The Weakness & Irritability of y^e Body renders it liable to Cold — this is y^e case with those who live in hot Countries, or with us in Autumn after y^e heat of Summer — If y^e Vessels act strongly, y^e Action of y^e Vessels do prevent y^e Blood from going through the Internal Parts — sometimes y^e Cold indeed, is stronger than y^e Action of y^e Vessels & produces Inflammation. — But w^h y^e Body is weak & Irritable, it is extremely liable to be affected with Cold; a small degree will then contract y^e External Vessels & throw y^e Blood on y^e Internal Parts. — Irritability is attended perhaps with worse consequences than weakness, as y^e Body is more liable in consequence thereof to be affected with every Cause of Dis^e. — There are also certain Seasons in w^h Persons are more

Seasons of y^e Year

liable to be affected with Cold, particularly at y^e Time of y^e young Paroxysm, w^h does in some measure contract y^e Vessels, & w^h Cold acts along with it, y^e Effects produced are more considerable. — Anxiety, Fear, Grief & other Passions act in y^e same manner as Cold in contracting y^e Vessels, where y^e Vessels are act^g weakly, ^{these} powerfull unite with Cold in producing Dis^e. — the same may be said of Putrid Vapor. — w^h the Stomach is empty, or

Exposure of y^e Limbs

w^h any Evacuation is made, y^e Action of y^e Vessels is weakened, & therefore y^e Blood is more liable to Dis^e. — On the contrary, those Passions y^e increase y^e Circulation, such as

Evacuation

Courage, Unnatural Desires &c. by caus^g y^e Blood to circulate more violently prevent this contractⁿ for lack of place. — Wine has also y^e same Effect. — People y^e have been extremely liable to take Cold, may be render'd less so by Lustre; & so on y^e contrary, a Propensity to it may be increased. — Cold, as well as all other Stimuli, if apply'd in such a degree as to produce no Effect, loses its Efficacy.

Cure.

Of Inflammation of the Mucous Membrane

If Persons are frequently expos'd by degrees to cold, so as ~~it~~ it shall take no effect, they will at length be able to expose ~~themselves~~ to great degrees of cold without any danger, whereas if cold produces a Disease once, it will be more liable to produce it a 2^d time, & if 3^d time more readily y^t of 2^d &c.

Of Inflammation of the Mucous Membrane

Produced 2 ways
In strong Habits

This Inflamⁿ is produced in two diff^t ways accordg to y^e strength of y^e Habit. In strong Habits a quantity of Blood is thrown on y^e Vessels of y^e Mucous Membrane (e.g. of the Intestines) these Vessels not readily givg way an Inflamⁿ is produced, whereby y^e Vessels actg strongly force open y^e Vessels of y^e Mucous Membrane & a secretion takes place; there is first a Pain, & then a Secretion of Mucus. — But if y^e Habit is weak, then the small vessels are not contracted wth any degree of firmness wth y^e Blood is thrown in a consid^l quantity on y^e Mucous vessels, they are therefore easily forc'd open.

In weak Habits

Wth y^e Mucous Membrane has been affected sometime, y^e Mucus wth wth it is bind^d is carried off, & y^e Membrane is expos'd to y^e Stimulus of y^e Neutral salts wth at length being on an Inflⁿ in y^e part, this is y^e case in a Dysentery. — Thus this Dis^r varies consid^l accordg to y^e strength of y^e Part; this particularly observable in y^e Dysentery; y^e Autumnal Dysentery is only diff^t fr^m y^e Inflamⁿ Dysentery wth takes place in y^e spring — In warm Countries they are liable to have consid^l quantities of Bile ~~be~~ thrown into y^e Intestines as well as other Juices of y^e Body, this has been consid^d as y^e Cause, but is in reality y^e Effect of y^e Dis^r. — These things being promis'd we proceed to y^e Consideratⁿ of y^e particular Inflamⁿ of y^e Mucous Membrane, — and first,

Of the Catarrh

Causes

cold chiefly
sometimes Passions

This Dis^r is commonly produc'd by cold, & sometimes by y^e Passions of y^e mind wth have y^e same Power with y^e former of throwing y^e Blood from y^e External upon y^e Internal Parts; there have been Instances of this kind; as was y^e case of a Gentle^m who on receiving the News of y^e Death of an only son, was in a few minutes seiz'd with y^e symptoms of a Catarrh, tho' he had not been expos'd to cold in any shape, but this seldom happens — This Dis^r generally owes its origin to cold, Passions of y^e mind have commonly more violent Effects, produc^g Fever. — This Dis^r varies accordg to y^e symptoms already enumerated

Of the Catarrh.

Inflammation of the Throat
 first Inflammation of the Throat
 In weak & vice versa
 according as if Part is either strong or weak. — If if Part is strong, there is a degree
 of Inflammation present, & in consequence of it, a secretion. — If if Part is weak, there
 arises first a secret: & in consequence thereof an Inflammation. — This Dis: is among.
 Diagnosis: Both a Running out of Mucus, a Cough with a secretion of Mucus with but little sign
 of Inflammation. w^{ch} if Dis: continues abt 24 Hours, if Inflammation arises together with a
 Hoarseness & soreness in if Breast. — The symptoms are diff: accordg to if diff: Parts
 of it are affected, for several Parts may be affected by this Dis:; it may be if
 Symptoms diff: accordg to if Parts affected
 Mucous Membrane of if Nose, Throat, Trachea or Lungs if it is affected, or all of
 them at if same time. — It frequently happens if this Dis: affects if Lungs with:
 affectg if Nose or Throat; but it seldom affects if Nose with: descendg to if Lungs;
 for if thin Mucus runs down to if Trachea, washes off if Mucus if depends it &
 thereby if Dis: is communicated to if Lungs. — If it is if Throat if it is affected
 then there is a swelling w^{ch} prevents if Air from gett^g readily in & occasions a stoppage
 there, at first there is but little secretion, & w^{ch} is secreted, is thin; as if secretion comes
 on the Inflammation diminishes. — If it is the Throat if it is affected, there arises
 The Throat a considerable redness abt if Part, if Tonsils appear Inflam'd, there arises a secret:
 The Trachea & Lungs then the Inflammation abates. — If the Trachea & Lungs are affected, there is a
 sense of fullness & an inability of opening if Chest to a sufficient degree, there is
 a difficulty of Breathing, but not to so great a degree as in if Pleurisy nor
 attended with if same Pain. — If the Throat is first affected, there is an Inflammation
 near if Larynx Glottidis, if Tone of if Voice is lost & if Part becomes hoarse; w^{ch}
 this is if case, an Inflammation of Diphtheria arises, particularly if if Mucous Membrane
 of if Throat & Lungs is affected, if Pulse becomes hard & full. — If on if other hand
 the secretion first takes place & brings on if Inflammation, the secretion is consid^l, at
 first thin, & then becomes thicker, attended with a stuffg of if Mucus together with
 a Cough, but if Inflammation does not run high. — If if Lungs are first affected then
 arises a Cough w^{ch} is not attended wth much pain or hoarseness, then arise effusions
 — When the secretion first takes place, if Inflammation does not rise so high nor is it attended
 with if Inflammation of Diphtheria as when the Inflammation first takes place.

Of the Catarrh

Prognosis

This Dis^e admits of a Natural Cure & needs little more of Care to prevent a fresh Cold from being taken; if Mucus becomes thicker, then greenish & yellowish, & at length goes gradually off. — But this is not always of Case, for sometimes the Inflamⁿ spreads in y^e Lungs & a Pneumony is produced; tho' tis seldom y^e such an Inflamⁿ arises in a Catarrh as runs a risk of cut^tg off y^e Patient. — But if the Dis^e rises to a considerable height & y^e Inflamⁿ is great, y^e Mucus is converted into Pus w^{ch} destroys y^e Mucous Membrane & brings on a Consumption. — w^{ch} Catarrh

Mucus distinguish^d
from Pus.

has continued for a considerable time we can't certainly conclude whether there is an Ulcer form'd or not — tis said it may be distinguish'd by throwg y^e Matter into water, & if it is Pus, it will sink to y^e bottom; But Mucus may sink also, if it is not mix'd with a considerable quantity of Oil — tis said also if Pus contains in it a quantity of Oil & is thrown into y^e Fire yields an Impermeative smell; But y^e Mucus has a quantity of Oil in it also, & may emit such a smell. — We chiefly judge of an Ulcer's being present by y^e Circumstances w^{ch} w^{ch} it is attended: if y^e Mucus is secreted for a considerable time, & continues to be so in greater & greater quantities we have reason to conclude it to be an Ulcer; if it is only Mucus, it is secreted in much greater quantities at some times than others, but Pus is secreted more uniformly. —

Narrowness of y^e
chest a cause

It frequently happens, if after y^e violence of y^e Inflamⁿ is carried off, y^e still some degree of Inflamⁿ & secretion remains; in this case w^{ch} y^e Body is expos'd to fresh Cold, y^e secretion is form'd much easier y^e before, & y^e secretion continues so as never to be wholly carried off, & w^{ch} is greatly increased in cold weather. — Another cause of this Dis^e is y^e narrowness of y^e chest w^{ch} begets a difficulty of breathg, this brings on a Cough, & y^e occasions a considerable secretion, w^{ch} in time brings on an Ulcer in the Post. — Another cause is a

Weakness of y^e
Mucous Glands

weakness of y^e Mucous Glands in general; when a Gonorrhoe takes place in such a Habit a stubborn Gleet w^{ch} continues for a long time is y^e consequence. This disposition of Body descends from Father to Son, so y^e a Catarrh is frequently hereditary.

Scrophulous affectⁿ

In Scrophulous Affections y^e whole of y^e Mucous Glands are affected & particularly those of y^e Lungs, Rara Tubercles are hereby form'd, these are liable on every fresh Cold taken to be converted into Ulcers w^{ch} terminate in a Consumption.

Of the Catarrh

It is frequently of Case, where if Mucous Glands are long accustomed to a secretion of. they become much weaker & in consequence of a continuance & increase of it secretion destroy of Patient. — Many Persons who have been said to die of Consumptions have on dissection appear to have no Ulcer found in their Lungs. — If a secretion of Mucus found in Winter is not stop'd in due time, it frequently continues till of approach of Summer with. do much mischief: but if ensuing Winter on of applicatⁿ of cold if secretion takes place afresh, & at length an Asthma is produced. — Sometimes indeed it is continued thro'g^t Summer, whereby if Patt. is greatly weakened; a Pain takes place in of Back; the sleep of Paroxysm is increased & if Pulse becomes quick at night; the Patient falls into a sweat towards of Morn^g; colligative sweats are produced on of slightest occasion; Dropsical swellings take place; if Patt. is weakened more & more; a Delirium arises & of Patient is at length destroy'd. — Thus if Catarrh by a great secretion of Mucus weakens so as to destroy of Patient where no Ulcer is found.

In many Cases, there needs little more to be done in Catarrhs than to prevent of Patt. from being exposed to fresh Cold. — But w^h any Inflam^y Diathesis comes on 'tis necessary to take off a quant^y of Blood; but where no such Diathesis is produced, such an evacuatⁿ is needless. — We can produce no evacuatⁿ from of Part affected unless it be by Mucus.

Purg^g is of service in of Catarrh w^h it affects of Head or Throat; but of Purgatory must be of of Antiphlogistic kind as Acids & of Neutral Salts; these form an humors²² not only for of System in gen^l but also from of Parts affected. — In of mean time if there is not a sufficient secretion of Mucus we are to promote of secretion by of Applicatⁿ of Stimulatⁿ & Subst^s; we may apply Squills, or as there is no great Inflamⁿ we may use Gum Ammoniac. — But if of secretion is already sufficient, we ought not to apply those Subst^s as they have a tendency to cause of secretion to continue too long. — Prepared Oils, or Vegetable Mucilages as they may be apply'd to of part affected may be of service; thus we give with some Advantage Sugar, Squillid Oils, Infusions of Linseed, & of Althaea Root & of like. — w^h the Catarrh is recent it may be carried off in this way; but where of Distⁿ is bro't on & like to continue, we must be on our guard, because then we have reason to fear, if we shall not totally remove it

if long continued
in Asthma
or Consumptⁿ

Cures

by Bleed^g

Purg^g

Expectorants

Of the Catarrh

guard against such
exposure to cold

Med. mod. exp. Circ.

Opium

but seldom given
with safety

Med. mod. with
mod. mod. exp. Circ.

Persons who have had Catarrhs for a long time, or who have narrow chests, or whose Lungs have been formerly affected, should be very cautious in guarding against fresh colds — by this means alone, Persons who have been subject to Catarrhs have got rid better of them — this is one of the principal things to be regarded in this Case.

Again, where a secretion arises from the Lungs, Med. produce & regulate Circulation of great use; by causing Blood to circulate equally, they cause it to circulate in less quantity on the part affected — I have seen a Grain of *Emetic Sulphur* which was divided into two or three doses perfectly cure this Dis. — And where this Dis. has been of considerable duration, this Med. has effectually removed it.

Another means is *Opium*; but this should never be employed where there is considerable Inflammation — Some have employed it in Pleurisy, but when there is a considerable Inflammation it increases the difficulty of Breathing, & after its operation is over if Cough & Secretion are increased — Before we use *Opium* tis necessary to take off the Inflammation by Antiphlogistic Medicines. In a Catarrh where there arises a secretion with Inflammation, there *Opium* may prevent an Inflammation from taking place; but even in this case tis dangerous to exhibit it, for it increases the Action of the Vessels & the difficulty of Breathing; it also prevents the increasing of a collection of a quantity of Mucus in the Lungs in consequence of which it becomes very thick and dry; so if the Effects of *Opium* are over a more violent Cough comes on than before to free the Lungs of this collected Matter, & this Cough raises an Inflammation.

Opium mixed with Med. producing squable Circulation may be given with Advantage; these Med. take off the flow of Blood from the Lungs, & if *Opium* checks the Secretion whereby the Dis. is removed. — When there is a considerable Inflammation of the Lungs, should be taken off, but after it is removed, *Opium* may be given in the manner directed; always regarding this, if the Secretion is not stopped but there is a quantity of very thick Mucus produced which causes a violent Cough, *Opium* in this case must not be used, but Expectorants to thin the Mucus & cause it to be thrown up. — But where we can check the Secretion, there *Opium* with Antimonials may be used to great Advantage. — Other Antirheumatic Med. we apply to stop other secretions of the Mucous Glands can't be given here.

Having gone thro' the primary Causes we produce a Pulmonary Consumption we shall go on to come to the Symptoms & manner of treatment in this Dis.

Of the Pulmonary Consumption

Of the Pulmonary Consumption

Causes.

Inflammⁿ of Lungs.

Catarrh

The Pulmonary Consumption is caus'd by an Ulcer form'd in y^e Lungs w^{ch} may take place in several ways; as it may arise from an Inflammⁿ of y^e Parts y^e self; for if y^e Lungs are inflam'd an Abscess may be form'd w^{ch} will produce an Ulcer. — It may be produced by other Inflammⁿs of y^e Breast, such as those of y^e Pleura & Mediastinum w^{ch} sometimes communicate themselves to y^e Lungs from an Abscess there, & y^e Pus is evacuated by y^e Mouth. — Besides, we have shewn, y^t a long continued Catarrh may produce an Ulcer w^{ch} is attended wth Inflammⁿ of y^e Mucus beg converted into Pus w^{ch} produces an Ulcer. — There are also some peculiar

Causes w^{ch} produce this Dis^e. — Inflammⁿ Diathesis prevail^g in y^e system frequently produces Ulcers

History of Dis^e in y^e Lungs. — It chiefly happens to Persons of highly sanguineous Temperam^t from y^e age of 18 to 25 w^{ch} y^e Temperam^t is at its height. — It takes place chiefly in y^e spring of y^e year w^{ch} a strong Action of y^e Arteries take place; the Pulse becomes hard & a little quicken'd especially towards y^e Evening; afterwards y^e quickness becomes more consid^{le}; the Tongue becomes white & dry; y^e Appetite is lost; there arises a degree of Thirst by a quantity of blood beg thrown on y^e Brain. — The Strength of y^e Muscles is lost so y^t y^e Pat^t becomes weaker, w^{ch} is greatly increased by y^e want of proper nourishment; the Pulse becomes smaller but very hard; a consid^{le} quantity of Mucus is collected on y^e mucous membrane which is thrown up; there arises frequently an Haemorrhage from y^e Lungs, & as y^e Blood is not wholly evacuated, it is then converted into Pus w^{ch} forms an Ulcer there. — This is y^e Nature of y^e Hereditary Consumption. — This has been said to arise from an Obstruction of y^e Mesenteric Glands; but no such Obstructions have appear'd on Dissections. — tho' when a quantity of Pus is collected in y^e y^e Obstruction may take place. — This Dis^e may sometimes prove its own Cure, w^{ch} y^e strength of y^e Arteries are diminished thereby, or y^e advance of summer it may be entirely remov'd.

Haemorrhage

Scrophula

Haemorrhage from y^e Lungs may cause a Consumption — this Haemorrhage may be produced by various Causes, such as a violent Fit of Cough; a laxity of Habit; but these are not very liable to terminate in Consumptions, because y^e Inflammⁿ is not usually great, & y^e Blood therefore is not readily converted into Pus. — There are other Causes also w^{ch} produce this Dis^e such as Pat^t beg affected with y^e Scrophula, in w^{ch} y^e Glands of y^e Lungs are affected, then don't appear at first to be diseas'd like y^e Scrophalic Glands of y^e Eyes and Neck, then the

Of the Pulmonary Consumption.

Glands of of Mesentery become affected, & lastly, of mucous Glands of of Lungs. But these last are not so affected as to produce Ulcers, but so as of Tubercles are form'd; w^{ch} a cough arises, some of these Tubercles are thrown off & an Ulcer is then form'd. — Again, w^{ch} any cause of Mucus is divid'd on of Surface of of Membrane w^{ch} it is thrown off an Ulcer is form'd & a Consumption takes place. — Again, an Inflam^y Diathesis may not only cause it in of Manner already mention'd but as it arises fr^m various other causes, as of Measles, in sanguineous Temperam^t leave behind of a degree of Inflam^y Diathesis w^{ch} if not weaken'd by Blood^y & Pus^y, many times brings on a Consumption. — This happens sometimes after of small Pox also, tho' not so frequently. — Again, if Pus is absorb'd, it is frequently convey'd to of Lungs where by its fermentation it begets an Ulcer there. — Lastly, if any Extraneous Matter gets into of Lungs by wound^y & tearing of Parts it forms an Ulcer.

W^{ch} an Ulcer is form'd in of Lungs there is always a quantity of Pus thrown up; this serves to show us of an Ulcer is present, if we can distinguish betwⁿ of Pus & Mucus soth may be thrown up at other times, & this may be done by consider^y of Manner in w^{ch} it is spat up, if from of begin^y it is thick, & sinks in water, we may be sure it is Pus, for Mucus is always thin at first, & becomes thickn'd afterwards — when of secretion has continued for some time we find it more difficult to distinguish it. — But we must observe, of frequently both Mucus & Pus are spat up together, & on acct. of of Lin mix'd w^{ch} of Mucus is prevented from sinking in of water. — This Ulcer is more dangerous than any other on acct. of its Situation, because it is a part of is continually in Motion. — If an wound was made betwⁿ the Fingers & these were kept continually in Motion, of wound wou'd not heal; this is of case with of Lungs. — The only case in w^{ch} it is cur'd is, w^{ch} arises from an Inflam^y of of Lungs; this Inflam^y while it continues, in some measure prevents of free Motion of of Lungs, whereby of Ulcer is sometimes heal'd, but this happens very seldom.

The quantity of Pus of is thrown up is sometimes very large, in consequence of w^{ch} of Patient becomes soon emaciated — Sometimes a violent Hemorrhage takes place & of Patient is soon destroy'd — But this is seldom of case unless where of Pleurisy is large. — More frequently a quantity of Pus is absorb'd & thrown on all of diff^t sensible Organs & Stimulates them, this produces a disagreeable feel over all of Skin, attend'd wth a loss of of Appetite, and an increase

- dis'd Mucus

Diffy Diath^y after
of Mucus &c

Pus absorb'd

Pus disting^y fr^m Mucus

Prognosis

seldom cur'd

Pus sometimes soon
destroy'don of Pus acts as stim^t
& produces a fever

Of the Pulmonary Consumption.

of long Paroxysm; sometimes if cold Fit of a Fever comes on ^{in the noon} succeeded by a hot Fit which produces a sweat towards morning; by this hectic Fever of Pul. is gradually exhausted.

Course of 4 hours
of 4 Patients

The Patient frequently thinks himself much better, this proceeds perhaps from a stimulus of Pul whereby the spirits are kept up — tis of some use in if Dropsy there is a distention takes place which acts in the same manner as a stimulus & supports of spirits.

Hardness of Pulse
which is not weakening

'tis certain however, that if Pul. fancies himself to be grown better & better, & it is a lucky Circumstance in so dreadful a Dis. — During the whole course of Dis.

until if symptoms of weakness come on to a considerable degree, if action of the vessels are kept up so that there is a hardness in the Pulse; this is by no means inconsistent with weakness of the Muscles, for this hardness in the Pulse produces a weakness of the Muscles.

Form of 3 red
Globules preserved

The Patient thro' continued action of the vessels, & want of nourishment, is exhausted. — During the quantity of Pus is continued in the blood vessels it acts itself as a ferment, & prevents of Fermentation which forms of red Globules, so that if quantity of it contained in the veins is very small, in consequence of which there is a particular paleness in the Face, & sometimes a yellow hue on out. if appearance of sebaceous Glands: the white of the eye acquires a bluishness of red part of blood not appearing; the Tongue becomes of a yellow colour & generally with less mucus common. — The Patient goes on to be gradually exhausted, till symptoms of great weakness come on, such as Colliquative sweats or a Purging, then arise considerable swellings in the extremities; the Patient falls into a Delirium, & is suddenly cut off.

Prevention

Inflamⁿ observed

Abscess in other parts
freely open

Inflamⁿ Diabetic
induced by treatment

The Dis. is to be prevented from taking place by avoiding of its Cause of it — If an Inflamⁿ takes place in the Lungs or Pleura we are to bring about a resolution by all possible means — If a Catarrh comes on attended with Inflamⁿ we are to take off the Inflamⁿ in the manner already described. — If an Abscess should arise in any other part of the Body we are to make an opening into it, & as to make as free a discharge as possible; we are not to leave any Sinus behind; and in large Abscesses to prevent of absorption of the Pus we give the Bark which renders it thicker & in consequence thereof less liable to be absorbed.

The Inflamⁿ Diabetic produced in the sanguiferous Temperam^t. or it will take place after the Measles is always to be got rid of better of by evacuation, on which these symptoms pass.

Of the Pulmonary Consumption.

You find in this Dis^e: if of Pulse is small but hard, & if of muscular strength is lost, but upon taking Blood away, & Pulse becomes fuller & of strength returns. — Blood is tropical? two or three times especially w^h of Cough is produc'd is of great use to carry it off.

Blood to be purged

Purgatives

Exercise

Purgatives are also of consid^{ble} service. — Exercise if carried on in a free air to a degree of fatigue is of use; for in this Dis^e there appears to be a greater action of of morous Power in of vessels & in of Muscles, but by exercise we recall it into of Muscles, & also cause of Blood to circulate more on of outer parts of of Body, so w^h not a less degree of Air is required to be thrown into of Lungs. — Med^l: produce & ignoble Circul^r given

Med^l: of Epilepsy

in small Doses are of service; Neutral Salts are of some use; Antimonials & Balastrakroot may be also given. — If by a particular flow of Blood to of Lungs there arises

Hæmorrhage how stop

an Hæmorrhage, or any other cause, we must diminish of quantity of Blood by bleed^g if it is produced by too strong an Action of of vessels in of Lungs, this is taken off by bleed^g.

— Astringents & Rostingents

Astringents & Rostingents are here also used to advantage; the most powerful Acids & Alum are here of service. Med^l: produce & ignoble Circul^r as if prevent of Blood from particularly flow^g on of Lungs by causing it to circulate thro^g of rest of of Body are of service.

Salts of Lead as
of last resource

But sometimes in spite of all we can do of Hæmorrhage continues, in this case of most powerful means must be used, particularly of Salts of Lead, of Mercuria Plumbi is of most powerful, because all its other Preparations become Mercuria in of Stomach; for if we throw in the Saccharum Saturni to of Stomach by a double Elective Attraction it will be converted to a Mercurial Salt of Lead; we sh^d begin with small Doses & go on to larger, we sh^d begin wth half a grain three or four times a day — but this sh^d be our last resource as of Patient is frequently poisoned by it; for it brings down of Pulse surpris^gly & stops of Peristaltic Motion of of Intestines. — I have seen several Cases where of Salts of Lead were of Advantage w^h every other Med^l: fail^d, but always attended wth disagreeable Symptoms. If there is not a spit^g kept up, we are to use Expectorant^y Med^l; but we are under a difficulty, bec. all these are Stimulat^y Med^l; we are however to prefer of least Inflammatory, quills are preferable to of Spinal Oil. — Very frequently of prevent of Hæmorrhage

Expectorant: to be
promoted wth nuff

Of the Pulmonary Consumption

by delay of cough, & many of them to be secreted thinner & in larger quantities whereby of cough is appeared. — After an Haemorrhage is necessary to get of blood out of of Lungs, & it is sometimes 40 Pounds before this is done for at first of blood runs off very florid, afterwards it becomes of a darker colour & mixed with Pus. — In order to prevent the Blood from putrefying there, we are also to take off all Inflammation by leeches.

Scrophulous Patients whose Lungs are affected by of Dis^e. sh^d be guarded particularly against Catarrhs by avoiding of causes of cold, for such a Catarrh frequently ends in a Pulmonary Consumption.

Cure
Ulcer to be attended by a good Air

If an Ulcer is already produced in of Lungs & it happens from a recent Inflammⁿ, & we have some hopes of curing of Dis^e, if only chance we have is by sending of Patient to breathe a pure Air. — Such a kind of Air is found near running water & in a chalky or gravelly soil; it sh^d be moderately warm, & not subject to sudden changes of heat and cold, this happens where of place is defended by a range of Mountains forming a circle to of North & East. — If of Air is not pure, a greater quantity of it must be inspired; & if it is moist, or subject to sudden changes, a greater quantity of blood will be thrown on the Food of very digestⁿ internal Parts. — The Food sh^d be easy of digestion & as nourishing as possible,

such as Opus or Mares milk or whey made of ym; these are of best, because they require but little digestion, & afford of greatest nourishment, & bring on no great action of of Vessels. — We can use no Mod^s unless it be those of promote an agreeable Circulation. — Bark will bring on a difficulty of Breathing — Mercury will produce too great a stimulus & cause a considerable action of of Vessels. — Night Astringents have been used at some Advantage.

Gentle Expector^t when necessary. — If of cough is troublesome & little is spat up, then gentle Expectorants may be used. These are of only methods of we can depend on — But I don't know of a single Instance on record of an Ulcer in of Lungs of has been cured unless where it arose from venous Inflammⁿ.

Expectative Cure

Altho' we can't cure of Dis^e, yet we may palliate of symptoms; we can check cough to the appearance of troublesome of of cough; we can also check of Evacuations where they are great by Diuretics & Extractions of use of of Bark; this brings on such considerable relief at of first of we are ready to hope for a Cure from it, but such an Expector^t will fail us, for sh^d it reduces the Pus to a greater degree of Consistence, yet it increases of difficulty of breathing.

Of the Dysentery

of Opium

Opiates are of service to appease Cough & to form a thicker secretion. but they never can be given when we would cure Pne. for they bring on a difficulty of Respiration, a quantity of Mucus is collected in Lungs, & they increase by the stimulus of Action of the Vessels. — Expectorants may be of service when there is a consid^{le} quantity of Mucus mixed with a small quantity of Pus. — When Inflamⁿ is consid^{le}, Blood may be of service to relieve this symptom. — But we are not to expect a cure from either of these

Persons have been said to be cured of Consumptions But in such cases there was only a large secretion from the mucous Glands — I have seen a Pat^t go on in this way for two or three years being sometimes better & sometimes worse; but where an Ulcer is formed, it seldom more than 5 or 6 months in cut off the Patient — sometimes an Ulcer is generated towards the end of the Dis^e & then it soon destroys the miserable Patient.

Of the Dysentery.

I am now to treat of an increase of secret. fm. of Mucous membrane of Intestines, w.^{ch} differs consid.^{ly} fm. of secret. of the Mucous membrane of Throat & Lungs, inasmuch as if many Stimuli may be apply'd to this, than to of other, & if of symptoms are more evident.

Answer Dysenteries are chiefly produced by cold, tho' they may be sometimes by other causes.

chiefly Cold Some have supposed if they are produced by Application of Purgatives, this is in some measure sometimes Purgative true; Scammony how produced it, & perhaps some other Purgatives y^e have a quantity of Resin

contained in y^m. & sometimes of Milder Purgatives have this effect — But it has been
suppos'd y^t if generality of Dysenteries have been occasion'd by these Milder Purgatives
such as of Nature Vegetable Acid Taken in consid^{ble} quantities by eat^g of summer Fruits

— It's certain, if a large quantity of Fruit will purge, but this goes off in 24 or 48 Hours at most wtho^{ut} produc^g any Dis^e. — It's further observable, y^t if Dysenteries prevail^g in Autumn have not been in proportion to y^e quantity of Fruit produced in y^e Summer; there hav^g been but few w^h there have been large crops of Fruit, & so on y^e contrary.

— May, it has been observ'd, y^t those who have eaten y^e largest quantities of Fruit have been least subject to this Dis^e.; & y^e reason is manifest, for y^e Acid was a Diathesis counteracts y^e Stimulus of y^e Heat, & prevents such a quantity of Blood from being drawn on, & from Excess.

Of the Dysentery

Body weaker & liable. It is of heat of summer, & chiefly produces this Dis^e. whereby of Body is weakened by heat of summer & weaker & more irritable & therefore more liable to be affected by cold.

Another Cause w^h has been supposed to produce of Dysentery is Putrid matter. It is true, of putrid matter has of same effect as of Body as cold, contract of vessels, & also, if w^h another cause acts with cold its effects are more powerful: but when putrid matter produces Dis^e, tis always a Fever & not a Dysentery; w^h it is apply'd together with cold it more frequently produces a Dysentery than w^h apply'd alone; but this putrid matter always gives a tendency to Fever in of Dis^e. & there is always more or less of Fever accompanying of it. — Putrid matter apply'd to of Præputia always produces a Purging & this is more liable to turn to a Dysentery than any other, because it keeps up of purging by its continuance there — tho' there may be a considerable quantity of putrid matter lodg'd in of Bowels, & yet no purg^g produced. — The same may be said concerning Acidities in of Stomach w^h may produce purging, & w^h may be continued for some time by fresh Acidities be apply'd, but this seldom produces Dysenteries — these two kinds of Stimuli w^h they do purge (w^h is seldom of case) act like other Purgatives — w^h regard to any other Acid matter if may be s^d to be apply'd, we are not acquainted with it.

Cold is of Cause manifested by of Flay where it prevails

Cold is of principal Cause of Dysenteries, or Putrid vapours apply'd externally may assist cold in of production of it. — We find of in all those Countries where Dysenteries are common, Persons are expos'd to greater causes of cold than in any other. The Coast of Africa (where this Dis^e prevails) is a very low flat Country, where at some seasons there is a large quantity of Water, & at other times it is very dry; in of long great Dews come especially near of Banks of rivers. — 'Tis the same case at Bengal, at of time of the Monsoons w^h is their most variable season, they are most expos'd to Dysenteries. And in this Country, Dysenteries are apt most to take place in Autumn w^h of of Body is weaken'd by of heat of of preceding Summer, & w^h of Atmosphere is very variable, sometimes hot & sometimes cold, sometimes wet & at other times dry. — Dysenteries arise sometimes also in of Spring in of variable weather; but it is chiefly derived of or then produced, because of Body is not become irritable, & therefore of Blood is thrown more on of Anus than the Abdomen.

Of the Dysentery

where of Air is impregnated with water, & of Body is very Irritable, Persons are very liable to be affected with Dysenteries.

We shall consider this Dis^r in a twofold view; as free from Fever; & as complicated with it.

W^h there is no Fever present, & if Patient is strong, on being affected with cold, there is a quantity of Blood thrown on of Intestines so that there is a degree of Inflammⁿ takes place there. This happens chiefly in colder climates, & in the spring of the year; & Pain takes place in the Part, & then a Purg^g comes on, but not very copious; a degree of Inflammⁿ Druthⁿ takes place but not so great as in a proper Inflammⁿ of the Intestines; but if Pulse becomes hard & strong; the Purg^g consists chiefly of Mucus mix'd wth blood, w^h is thrown out by the Action of the vessels — the Purg^g goes on gradually increas^g, & commonly diminishes of Inflammⁿ; after the Purg^g continues for two or three days, abates, & sometimes the Purg^g goes off all at once — but tis not often if case of Pain wholly is removed, for if Intestines be now laid bare, if any Fever increases of Pain, & keeps up the Dis^r, so that after the Dis^r has continued for 6 or 10 Months, if Patient is destroy'd thereby; if he is not destroy'd sooner by a Gangrene.

On the other hand, if the Patient is very weak & Irritable, or if cold be apply'd to the surface of the Body, there is a large secretion; the Liver secretes a quantity of Bile, & Pancreas a quantity of its fluid, so that there is a large secretion into the Intestines, so that plentiful Stools are produced attended wth little Pain; & this sometimes proves so enormous as to destroy the Patient in a short time, as in the Cholera morbus w^h frequently kills wth Inflammⁿ in 12 Hours time. — w^h if secretion is not so large as to destroy the Patient, if Mucus is gradually wash'd off from the mucous Membrane of the Intestines this happens in the Rectum first as it is part of it is most exposed & afterwards in the Colon; afterwards in consequence of the stimulus of the Mineral Salts & other subst mix'd wth the Faces such as a part of the Bile & Mineral Salts, there arises a considerable degree of Inflammⁿ — the secretion from the other glands of the Intestines becomes less, & greater from the inflamed Glands; there is now a considerable quantity of Mucus wth puts on the appearance of Pus tho' there is no destruction of the solid Parts, w^h is mix'd wth blood. — Then arises in consequence of the Inflammⁿ a good deal of Pain, & a Tenderness in consequence of the stimulus. — In the meantime the Peristaltic Motion of the Intestines does not go on in the Parts inflamed, in consequence of weak of Matter

Distinctions
Prognosis

W^h Patient is strong

an Inflammⁿ Druthⁿ
is mix'd by Purg^g

Patient very weak

Secretion takes place
wth little pain

at length Inflammⁿ
takes place.

Of the Dysentery

collected there have time to putrify, w^{ch} at length get down greatly stimulate, & inflam'd Parts. — There arises a quickness of Pulse tho' seldom attended with hardness, & Patient is gradually exhausted & is at length cut off.

Complicat. of Fever. We are next to consider of Dis^e as complicat^d wth Fever. — We shall first consider it as complicat^d with a great degree of Fever, w^{ch} will serve to illustrate of Nature of the Fever itself. — If Cold is apply^d to a Body as to produce a Fever in every Part except of Intestines; at a greatest degree of Exacerbation: if Purg^s stop, the Fever then affects y^e part also, but as soon as y^e is over of Purg^s returns; in this case, if Pat^t is soon destroy^d by these 2 Dis^e act^d together. — This usually happens in hot Countries, or in y^e Autumn; in colder Countries, if Fever is more universal in the efflu^a over y^e whole Body — in gen^l this Dis^e is attend^d with little Pain, as if Pat^t is cut off before of Inflammⁿ take place.

It sometimes happens, y^e if Fever does not arise to such a height, & of Purg^s continues at y^e Exacerbation tho' in a great quantity in y^e relaxation; in this case y^e Pat^t is sooner destroy^d y^e before. — These Purg^s are never of any use in y^e Fever, as they do not take place in consequence of a relaxⁿ of y^e capillaries of y^e system. — The Fever comes on in y^e manner we have describ^d of continual Fever, & is generally not a very violent one; it gradually goes on attend^d wth great symptoms of weakness, & if Patient is cut off in consequence thereof.

Cure

We now come to consider of treatm^t of this Dis^e; this must be adapted to y^e diff^t method in w^{ch} this Dis^e arises, or y^e circumstances of Inflammⁿ with which it is attend^d.

wth InflammⁿBy Bleed^g

In the Dysentery y^e arises with Inflammⁿ y^e first thing we are to aim at is, to remove the Inflammⁿ & Diathesis, w^{ch} must be done by evacuations. — If the Dis^e begins with a considerable degree of Fever & if Pulse is any ways hard, tis always necessary to take away Blood, & this is to be repeated till such time as y^e Inflammⁿ is subdued; for y^e great danger is y^e of Inflammⁿ sh^old arise to y^e degree as to destroy y^e Patient, or y^e of Part sh^old gangrene & mortify. — And even in other cases, where y^e Pat^t is strong, & there is any degree of Inflammⁿ & Diathesis, tis necessary before we proceed to a Cure to remove y^e Diathesis. — Tis necessary also to keep y^e Intestines clear of Feces; for tho' y^e lower parts are clear'd by y^e Purg^g, yet y^e smaller Intestines

Of the Dysentery

By Purgers of
Rhubarb - & but frequently contain matters of tend to putrefaction. — Rhubarb is of best purge for this purpose; & Neutral salts if are contained in of secreted mucus increase of Inflammⁿ & therefore Neutral salts given as purgatives must increase of Inflammⁿ & therefore do mischief, tho' they are of some service in clearing of Intestines. — The Nervous Purgers are pernicious; but Rhubarb as it has but little of a Nervous Part in it, Stimulates but little. If we want to get rid of its Astringent quality, this may be done by making an Infusion of it in water, by w^{ch} method we obtain its purgative quality only. We may also give it together with some subst^s w^{ch} by their viscidities may serve to defend of Intestines from of stimulus of of Neutral salts, such as Manna or suppresd Oils.

Q. is it said to be continued

It has been a question whether of Purgings must be carried on till such time as of Inflammⁿ is remov'd thereby — It has been said of of Purgg must be kept up till of Purid matters are carried off. — But these Purid matters are of Neutral salts & if you purge, of more aerid matters you derive to of Parts. — If you don't bleed sufficiently to carry off of Inflammⁿ, of Secretion may go on; but after sufficient bleedg there is no necessity to carry on of Secretion. — We are not to take off of flow of blood from of Intestines.

No; if doubled supply

By Med^g eg. are?

Neutral salts are by no means sufficient for this purpose; Spicaum has been used, but Antimonials are to be prefer'd. small doses of donot render of Patient sick, or such quantities as render him a little sick will be of considerable service — these must be given in of same manner as directed in Fevers, of Patient beg put to bed & drinkg but little; an Opiate beg given soon after. — At of some time a quantity of Suppresd Oil sho'd be given in order to defend of Intestines. — If we can check of Purgings in this way we do of Pat^t no harm, of Inflammⁿ is no ways increas'd; tho' if we were to check of Purgings at of beginng by of unseasonable use of Astringents, of Inflammⁿ w^od by of means be increas'd so of we sho'd be in danger of destroyg of Patient.

Suppresd oil

Whom? not us? in of beginng?

— We are to keep of Patient warm & to promote a flow of blood to of outward parts of of Body. — In the Inflammatory Dysentery we must be carefull then, how we apply Astringents to stop of Purgings, nor are we under of necessity of doing it in of manner we are in the other kind of Dysentery

Of the Dysentery

But after *if Inflammⁿ* they may be given *we take care to carry off if Inflammⁿ before we apply astring^t*; but after we see given *Med^s produce Equable Circulⁿ* we give *astringents*, begin^g with *if* *herkes*, such as *Cherbert Parilla*; if these do not do, we join *Opium* with them. — There is danger in delay^g of *Applicatⁿ* of these Med^s too long, for where *if* *secretion* is become customary the *Spasmodica* & *if* *Opium* are liable to run to *if* *Intestines* — In this case tis necessary to apply *if* *Spices*, whereby a free *circulatⁿ* is bro't on *if* *surface* of *if* *Body*, & *if* *Pain* is cur'd. — It requires some time however before *if* *Inflammⁿ* quite disappears, *if* *Pain* is so, & some little *Ulcers* may be form'd; tis necessary therefore *if* we are such *Food* as is *nourish^g* & at *if* same time affords a small quantity of *Feces*, & produces but little *Stimulus*. — It sometimes happens *if* *Costiveness* comes on

guard against costiveness.

whereby *if* *Feces* become putrid & at length bring on a *purging*; in this case we must take care to procure stools every other Day by us^g *if* *Purgative* part of *Rhubarb*.

With Inflammⁿ

In *if* next place we are to cons^r *if* *dis^e* as not attended wth *Inflammⁿ*.

By Purgation

If in this case there sho'd come on very violent *Vomit^g* & *Purg^g* as in *if* *Rhubarb* Med^s tis necessary to *empty* *if* *Feces* out of *if* *Intestines* w^{ch} is done by giv^g any *Purgative* wth a consid^l quantity of *Watery Fluids* such as *Broth* &c afterw^d we are to apply an *Opiate* so as to stop *if* *secretion*, for *if* its suffer'd to proceed, it will soon destroy *if* *Patient*. With this *Opiate* we must give a quantity of *Spasmodica* or *Emetic* *Tartar* whereby *if* *Blood* is to be thrown on *if* *surface* of *if* *Body* — 'Tis not often *if* we find *if* *dis^e* proceed wth such violence, tho' in warm Climates it is frequently so violent as to carry off *if* *Pat^t* in 7 or 8 Hours; *if* most powerfull *astring^t* such as *if* *Columba* are there made use of. — If a gentle *Purg^g* sho'd take place in this manner, *if* attend^d with sickness & *Vomit^g*, it happens sometimes *if* a Dose of *Rhubarb* is suff^t to carry off *if* *dis^e* w^{ch} given so as *if* *astringent* as well as *if* *purgative* part may be taken — The *Purgative* part carries off *if* *Stimulus* *Sub^t* & *if* *astring^t* quality restrains the *secretion*; nor is there any mischief done, for I have seen a 100 Cur'd in *if* way — But *if* the *dis^e* continues for 4 or 5 Days so *if* an *Inflammⁿ* takes place, then the *Rhubarb* is not sufficient, tho' I never knew it do mischief.

Sometimes Rhubarb does suff^t.

Of the Dysentery

If *Stomach* is also affected, an *Emetic* should be given consisting of some of *Med.* producing *Equable Circulat.* so as to vomit in *the manner already described*; & then a dose of *Mercurius* may be given; by both *the methods* of *Intestines* are cleared, & if *Blood* thrown upon *the surface of the Body*. — In this manner of case is treated w^h if *Part* is free from *Fever*, & there is no *Inflam.* present in *the Intestines*.

We will next suppose *if the Part* has not applied for relief till a considerable *Inflam.* has taken place in *the Intestines*. — If *the Part* is strong & a degree of *Inflam.* Diathesis is present, 'tis necessary to take off some *Blood*. But 'tis seldom necessary to do this after *the heat of summer* or in *the warm climates*; where *the Part* is expanded, there *Blood* is no way necessary. — The next thing we are to do is, to evacuate *the Primæ Viæ* both by an *Emetic* & a *Purgative*. — The reason of this is, *if the peristaltic Motion of the Intestines* is in some measure destroyed whereby *the smaller Intestines* contain a quantity of putrid matter. — After this, *the surface of the Body* is to be kept warm, & *Med.* producing *Equable Circulat.* given. — But if these do not succeed we must soon after join *Astringents* with them, & afterwards *Opiates* may be also given. — This is necessary as we are straitened in time, for *the Part* is in danger of being destroyed by weakness. — We need not mention particularly, w^h care ought to be taken *if cold* be not applied to *the Body*; But at *the same time* we don't want to throw *the Body* into violent sweats, it is only necessary to keep *the Body* in a perspirable state. — I seldom fail of cure in this method. — Sometimes we must apply *the stronger astringents*, tho' I have seldom found occasion for them.

Fevers join'd wth the Dysentery

Evacuate *the Primæ Viæ* w^h if *Fever* is very violent, *the Part* is frequently cut off unless *the Dis.* is taken in the beginning. — In this case 'tis necessary to evacuate *the Primæ Viæ* first by means of a *Purgative*, & then of an *Emetic*. — We chuse to give *the Purgative* first, as we w^h endeavour to gain a crisis by means of *the Emetic*. — We give *the Emetic* in *the Evening*, & afterwards we continue *the use of the Med.* producing *Equable Circulat.* thro' the Day w^h a crew to put a stop to *the Fever*.

Of the Venereal Disease

The Food. Thro' the whole of this Dis^e. if Food sh^d be such as produces but little Issues; it sh^d be compos'd of Fermentous & Animal Subst^s mix'd together; for animal Foods alone are apt to run to a putrefactive Fermentation. The Dis^e usually gives way to remedies already directed, tho' where it has long continued, tis very difficult of a Cure; & where it Constitution is weak, there is a great disposi^t to such a Secretion.

Of the Venereal Disease & Gonorrhoea benigna

Causes We come now to treat of a Inflammⁿ of a mucous membrane of a Urethra & Vagina — this is generally produced by a Application of Infectious Matter to a Part; the same *Infectious Matter* Causes may produce an increased Secretion there such as a Application of Cold to a Body — tis seldom indeed y^t this latter Cause does produce such a Secretion in the Urethra tho' it sometimes does; for Gonorrhoeas were known bef^e y^e Venereal Dis^e came to Europe. *Cold* In the Vagina such an increased Secretion is more common, for there may be other Causes w^h may cooperate with a Cold in producing this Effect; for if the Parts y^{mselves} are lax, & if dur^g of Menstrual discharge a Mucus is wash'd off, then a Neutral body stimulate a Part & bring on a greater Secretion. — We find this Dis^e frequently taking place where a Part y^{mselves} are weaken'd by difficult Labours, or where an universal weakness of a System prevails. *Hard Labours* The Dis^e w^h arises from Infection is of most common; we shall begin with this first, & then proceed to y^e w^h takes place with^o Infection — Perhaps it might be tho^t better, to describe y^e latter Dis^e first, as we might then more fully discern y^e difference betwⁿ of two Disorders; but as an increased Secretion always accompanies a Infectious Disease, & often that Secretion continues after y^e Dis^e is cur'd; to begin with a Simple Gonorrhoea w^d be to treat of a Labor & of y^e other Dis^e before we had consider'd its beginning & progress.

Where bro't The Venereal Dis^e was not known till y^e Discovery of y^e West Indies; the Soldiers coming from thence bro't it over, & spread it all over Europe — There were Gonorrhoeas & Filler Albus, before this time; but y^e Venereal Dis^e was not known; for if it had, it w^d have made its appearance to a considerable Degree so as to come under the notice of

Of the Venereal Disease

Physical Writers, as we can't suppose of our Forefathers were Chaster than those of
 of present Age, especially as Luxury prevailed in several Parts to a great degree.
 And this is further evident by its swift Progress it afterwards made, for in 3 years after
 of Siege of Naples where it first appear'd, it spread over all Europe.
 This Dis^e is always propagated by Contact; it must be apply'd to of Part in order to
 produce of Effect. — Some other Infectious matters being convert'd to Vapours will communicate
 of Infection as in of Small Pox & Measles; but this is not of case in of Lues Venerea, it
 was at first not capable of being thus communicated, but of contrary is now known.
 Moreover it must mix wth some of Juices of of Body in order to infect; if it is apply'd
 to of Skin it will not infect at all; but if it is apply'd to any part if it is soft be cover'd
 with Mucus it will produce this effect. — There are but two parts of of Body where it
 may be produced, of Parts of Generation, & of Nipples; there are indeed some Instances
 of its being communicated by of Mouth, but it must be constantly apply'd for this purpose.
 If the Infectious Matter indeed is apply'd to any wound it is as certainly communicated
 as if it was apply'd to a Part cover'd wth Mucus; in y^e case it is carried immediately
 into of Blood & of whole System is affected thereby. — The Dis^e does not take
 place immediately on of applicatⁿ of of Infectious Matter, unless it be in of case of wounds
 just mention'd; but in general it lies 3 or 4 Days, & sometimes as many weeks before
 any symptoms appear. — It has been of Subject of much dispute, wth became of the
Venereal Matter dur^g this Time — Some have suppos'd it was suck'd up by of spongy
Part of of Urethra, & at length by some outlet squeez'd out into of lacteal. — But if
 this was y^e case, of Passage is ready for it to enter into of blood & not into of Urethra.
 We know if of a wound is produced in those parts, of Venereal Matter does immediately
 enter of Blood Vessels & produces of Lues Venerea. — But y^e contrary to this is y^e case, for
 there is not an Instance in ten thousand where of Lues Venerea takes place without
 symptoms in of Part affected. — We can only conceive if it is entangled in the Mucus
of of Urethra till it converts of Mucus into a Subst^e like to itself.

is propagated

Dis^e does not take
 place immediately

and why

Of the Venereal Disease

It is difficult to conceive how this is of case in of Urethra; but similar Instances render it very probable; for in of Glands it may be so entangled as to cause Exudation. ^{where of Infection} It is at of Point of of Urethra of it makes its first appearance; there are two small Cavities near of Point where it operates first; but in a few Hours it extends itself thro' the whole of of Urethra. — Another Proof of of Infection Matter is first lodg'd in the Mucus is, if of we destroy of Mucus by a dilute solution of Caustic Alkali; we prevent the Dis^e from taking place; sometimes of Applicatⁿ of Alcohol, or Metallinsalts, to regulate of Mucus will have this effect, but not so certain as the Alkali; now if the Infection Matter was not lodg'd in of Mucus, of Dis^e could never be cured in this Manner.

Progress

The Infection Matter lies conceal'd in of Mucus till its quantity is greatly increased by of Conversion of of Mucus to a Substⁿ of of same Nature with itself; then according to of degree of Irritability in of Part, or according to of quantity of matter lodg'd there, the Inflammⁿ comes on. — We can easily see how this happens on of Glans, & thereby conceive of of manner in which it takes place in of Urethra — it begins with an Itching, then a redness takes place, afterwards a Blister arises, this turns to an Ulcer — sometimes a redness takes place & of Mucus becomes suddenly chang'd into Venereal Matter where there is no Ulcer form'd. — Dis^e is same in of Urethra, only as of secretes a greater quantity of Mucus, & of secretion is more considerable here than from of Glands. — The Mucus puts on of appearance of of symptoms usually does w^h secreted from inflam'd membranes. — The Dis^e may, diff^r on acct. of its producing an Ulcer, or not — where an Ulcer is produced, of Venereal Matter is absorb'd & carried into of Habit. — where of Dis^e only affects of mucous glands it is a partial Dis^e, but where there are Ulcers form'd, it affects the whole Habit. Now we can easily discern whether of Glans is ulcerated or not, but this is not the case in the Urethra; we know in general, if in of begin^g of of Dis^e there is no Ulcer, but when it is long continued, there is usually an Ulcer form'd. In treat^g of of Inflammⁿ of of mucous membrane, we shall treat of of Gonorrhoea; but that we may not divide of Subject improperly, we shall afterwards treat of of Lues Venerea

W^h it becomes an universal Dis^e.

Of the Venereal Disease

Gonorrhoea In *Gonorrhoea* those symptoms take place w^{ch} usually attend an *Inflam^d Membrane*; there is a *Pain* in *it* Part, attended wth a *secretion* of a whitish, yellowish or greenish Matter. This greenish secretⁿ has been conceiv^d as *peculiar* to *it* Venereal Dis^e; but this is by no means *it* Case, tis sometimes found in *it* *Solva Albus* — there is always an *Inflamⁿ* present & therefore there is always this *change* in *it* colour of *it* mucus. There are also *pusula* symptoms aris^g from *it* *irritatⁿ* of *it* Parts affected. The *humoral Salts* contain^d in *it* Urine produce consid^l *pain* by *it* Stimulus & increase of *Inflamⁿ*.

of the *Chordee* No^o any Part is *inflam^d*, it is not capable of *be^g extended*, therefore on *it* Erection of *it* Penis there is a *pain* felt as if it was ty^d wth a Cord, this is call^d a *Chordee*. Stimuli apply^d to *it* Penis are very apt to produce Erections, so *it* in this case they are more frequent than in health; sometimes there is a *constant* one, this is one of *it* most troublesome symptoms attend^g *it* Dis^e. — As *it* *effluvia* Mucus washes *it* Glans & Prepuce, it produces an *Inflamⁿ* there; the Prepuce in consequence of w^{ch} becomes incapable of distention, it can't be drawn back; or if drawn back can't be put forward; this forms a *Phimosis* or a *Paraphimosis*. — Sometimes I have seen consid^l *Oedematous* swell^g attend^g wth *Inflamⁿ*. — As a consid^l quant^y of *it* Infectious Matter falls down to *it* *bladder* of *it* *Urethra*, there is a consid^l *Pain* there also; & *it* *Bladder* is stimulated to empty *it* contents, so *it* it will not contain any consid^l quant^y of *water*.

Inflamⁿ of it Testicles Any slight *Bruise* will bring on an *Inflamⁿ* of *it* *Testicles*; it sometimes happens then *it* *Inflamⁿ* in *it* *Urethra* is remov^d, & *it* *Run^g stops*. — If we stop *it* *Run^g* by *it* Unreasonable use of *Antirrhizants*, the whole of *it* surround^g Parts are liable to *Inflamⁿ* & in consequence hereof *it* *Testicles* may be *inflam^d*. — 'Tis a *Question* whether there are not some *lymphs* w^{ch} convey this infectious Matter to *it* *Testicles*, some *Lymphatic* may arise in *it* *Urethra* & descend down to *it* *Testicles*, but we have no proof of this. — The *Principal* Cause in w^{ch} we find them thus affected is from *it* *Application* of certain Stimuli, such as *Riding*, *Walking*, sit^g down so as to heat *it* *Testicles*. — I have seen but few Instances in w^{ch} on *it* *Run^g stop^d*, *it* *Testicles* were *inflam^d*.

Of the Venereal Disease

Many other symptoms have been included in a Gonorrhoea, such as Shankers & Strikes, but these properly belong to Lues Venerea, & can never be safely cur'd with^t the use of Mercury, as Persons who have been cur'd with^t it have Lues Venerea.

The Tranſ at first is whitish; afterwards it becomes yellowish, & greenish. Sometimes it admits of a Natural Cure, wash^g it off away with^t if use of any means where, & then only remains a simple Inflammⁿ. — There is always a quantity of Venereal Matter generated by Fermentation; now if of quantity thrown out by if Tranſ is greater than w^t is thus generated, if Dis^t will cure itself; But if there is more generated than there is thus thrown out, the Dis^t will proceed. — As the Infectious Matter is thrown out, if Inflammⁿ abates, but is not wholly carried off at once, but by degrees, if Tranſ becomes less & less till at length if Patient is cur'd. — During this whole time on y^e addition of if smallest Stimulus, an Ulcer is form'd in if Urethra; & frequently also y^e Glands & Pegues are ulcerat'd; in consequence of w^t from b^g a Partial it becomes an Universal Dis^t. — Very frequently w^t Ulcers are first generated, in consequence of if Infectious Matter go^g into if Urethra, a Gonorrhoea is produced, & w^t if Urethra is affected, if Glands is likewise affected; but if care is taken this will not be the case. — We should not have imagin'd if Ulcers form'd on if Glands sh^d have produc'd a Gonorrhoea, or if a Gonorrhoea w^d produce Shankers. — It frequently happens if Shankers are produced with^t any run^g; but if a Person thus affected sh^d come again in contact with a Woman, a Gonorrhoea is then produced. — It is difficult to say how if Urethra sh^d become so readily affected; there is one method of solving if difficulty w^t is, if w^t an Inflammⁿ is produced in one part, it prevents an Inflammⁿ from tak^g place in another. — But it is fact, if a consid^l quantity of Venereal Matter may be lodg'd in if Shank & yet if if Urethra may not be easily affected thereby, as if if Parts were b^o into immediate Contact. — After if Infection is carried off, if Secretion is continu'd for some time. — It is if care in all if Mucous Glands, if where a Secretion has taken place for some time in weak Subjects, if Secretion will go on for some considerable time, sometimes for 2 or 3 years. — But in this case, if symptoms are not so violent as at first; then

History
& Prognosis

Of the Venereal Disease

is not near so much pain in *of* Erection as before; *if* Mucus is not secreted in such large quantities; as *if* Inflammation abates *if* Mucus becomes more viscid, tho' sometimes it exactly resembles *of* case where *if* Infection continued, *if* matter be greenish or yellowish. — Sometimes *if* Run^g goes off at once in a manner *if* we can't account for. — And sometimes it continues in such a quantity as to weaken the Part considerably. — The Parts *of* an adjacent are weakened more than any other, in consequence of *of* involuntary Emissions *of* *of* Semen take place; there is no sexual weakness more than this — in consequence *of* *if* secret^s & Emissions *of* *if* symptoms *of* weakness take place, & *if* Part is cut off. — This Venereal is not so common in Men as in Women where *if* secretion is usually greater, tho' it is possible *if* it should last may continue for many years with^o destroy *if* Part. —

Gonorrhoea
Congrua & Venereal
Distinction

The Gonorrhoea benigna & Fluor Albus are attended with *if* follow^g symptoms; there arises a considerable secretion of Mucus with some degree of Inflammation; but not so great as where an Infection takes place; tho' sometimes there is no great Inflammation attended *if* Infection. — The Run^g continues for some time, put^g on *if* appearance *of* an infectious Run^g appear^g greenish & yellowish, so *if* it is not to be distinguished from *if* will arise from an Infection, unless it be *if* in *if* Ground *if* Inflammation is not so great, & *if* Run^g is not so green; tho' this not a certain Rule as in *if* Gonorrhoea benigna & *if* Fluor Albus *if* Inflammation is sometimes considerable & *if* Run^g *of* a green colour. —

See Venerea
Distinction

We next come to show *if* symptoms *of* Venereal Dis^e *if* it affects *if* system in general. — It is a Question whether *if* Venereal Matter is carried into *if* system where there is no Exulceration form'd. — It is possible indeed there may be Ulcers form'd in *if* system w^h we can't come to *if* knowledge of; & therefore we can't certainly determine whether *if* Venereal Matter is not carried into *if* Blood. — I have seen Buboes form'd with^o any other symptom taken notice of, but upon further inquiry there were small Exulcerations form'd abt. *if* Glands. — In Gonorrhoeas where we have no Exulcerations *if* Venereal Matter does not pass into *if* Blood; tis generally from an Ulcer *if* it is absorbed & carried into *if* system, where there is an Ulcer there is a quantity absorbed. — It is true some Ulcers have been cur'd with^o any other Method, *if* it was necessary for *if* cure *of* a Gonorrhoea;

Of the Venereal Disease

But this not commonly of ease; tho' sometimes if Venereal Matter may be sometimes thrown out of system with^{out} produce of any effect, yet if not is not safe b^{ecause} there is an ulcer form'd withⁱⁿ of use of Incurables — w^{hen} there is therefore an ulcer, we may consider it as a Dis^{ease} of of whole system; but w^{hen} there is no ulcer it may be consid^{ered} as a Dis^{ease} only affect^{ing} a particular part — w^{hen} the Venereal Matter is apply'd to of Glands or Paps

Shankers

it inflames of Part, & if of some w^{hen} a Blister was apply'd to of Part, for a Blister arises w^{ith} cracks & lays of skin bare, then there arises a suppuration w^{ith} commonly destroys of Surround of Parts & an Ulcer is produced. — This ulcer is gon^{ing} considerably painfull, nor does it heal of itself, but spreads (unless some Med^{icine} is apply'd to destroy of Venereal Matter & to procure a granulat^{ion} of Flesh) till it destroys of whole Part. — And sometimes its progress is very quick; I have seen it spread thro^{ugh} of length of of Prepuce in 48 Hours; tho' in other cases it advances but slowly — It is attend'd w^{ith} of symptoms of other ulcers.

The Venereal Matter is absorb'd by of Lymphatics. — Sometimes there are inflam'd also, so of there arises a string of Ulcers to of next Lymphatic Gland; but this is not a common case. — The Glands be^{come} visible, if Venereal Matter stimulates them so of they become inflam'd — this be^{ing} but a lax part of Inflam^{ation} goes on but slowly; but at length it comes to suppurat^{ion};

Buboes

this is call'd a Buboe, w^{hen} w^{hen} open'd forms a Venereal Ulcer. — From this Lymphatic Gland it is convey'd to of system in general. — It is not always of ease if of Glands are first affect'd, for sometimes if Venereal Matter is carry'd immediately into of system w^{ith} any previous Inflam^{ation} there; the matter is carry'd for some time in of common course of Circulat^{ion} till at length it is secreted by of mucous Glands of of Throat, or of Salivary Glands of of Skin; there it inflames of Glands & produces fresh Exacerbations. It is to be

Ulcers in the Throat & Skin

remark'd of: w^{hen} there is but a small quantity of it in of Blood it does not produce Inflam^{ation} any where but in those Parts. — The secret of of Venereal Matter is made plac'd by a Fermentat^{ion} w^{hich} goes on in these Glands — The only peculiar Circumstance, which it has been besides Med^{icine} enjoy'd in common by of Fermentat^{ion} going on in of Body is, Exposure to of Air whether this is of cause of its spread, we know not; tho' we are certain of this is a Circumstance w^{hich} promotes Fermentat^{ion} in general.

Of the Venereal Disease

On the surface of *of* skin *if* there is *of* a peculiar kind, the inflamed part is always covered with a scaly crust, w^{ch} distinguishes it from all other ulcers. These ulcers spread considerably, & venereal matter is now generated in a large quantity. It then does great mischief in every other part of *of* body; tis thrown in consid^{le} quantity into *of* cellular Membrane; & in some cases *of* whole *of* Muscles have been separated from each other, *if* skin has also been separated from *of* cellular Membrane, & large Abscesses formed; tis also thrown into *of* cellular Membrane *of* *of* Bone, whereby *of* Bone & its vessels are destroy'd. The constant Stimulus apply'd to *of* body greatly weakens *of* Pat^t, & Scurvy Fever comes on w^{ch} puts an end to his miserable Life. — There have been no Instances in these colder climates where the Dis^e has been cur'd in its higher stages in *of* Natural Way; but in warmer climates *of* Dis^e is much slower in its progress.

Mercury is *of* only one we have yet found out; tis said *of* Indians have another method, & it is possible there may be many. — I say *of* thus shown *of* History *of* *of* Dis^e are come next to cons^r. *of* *of* manner in w^{ch} it is to be treated.

The Gonorrhoea may be prevented from tak^g place even after *of* Infection is taken, unless where there is a wound, in w^{ch} case there is no method of prevention known; for *of* venereal matter be^g apply'd to *of* wound begins to inflame it, & a quantity *of* *of* matter is absorb'd into *of* system. — When the venereal matter is only mix'd wth *of* mucus we have two methods of prevent^g *of* Gonorrhoea from tak^g place; one is, by wash^g off *of* mucus, the other is coagulat^g *of* it & thereby destroy^g *of* venereal matter. — The dissolution *of* *of* mucus is *of* best method, w^{ch} may be done withst infus^g *of* Mutton, by dilut^g a quantity *of* fixed caustic Alkali wth water. — Tis necessary for this purpose *of* *of* Alkali be perfectly caustic, for if it contains a quantity *of* mild Alkali, it will not dissolve *of* mucus, & at *of* same time will stimulate *of* part; if it is only a small quantity *of* mild Alkali *of* is contain'd therein, tis not material, but if one half is made up *of* mild Alkali it will not do. — The quantity *of* *of* fixed Alkali must be the 900th part *of* *of* water; but as we can't keep *of* salt in a dry form perfectly caustic, *of* best way is to take a concentrated solution *of* *of* Alkali, & then drop^g it into so distill'd water till you find

Destructⁿ *of* *of*
Cellular Membrane

Prevention

By wash^g *of* *of*
mucus

Of the Venereal Disease

if it washes off of Mucus of y^e Mouth. (for y^e Mouth is as sensible as y^e Urethra) as soon as it washes off of Mucus of y^e Mouth, with^{out} Pain, we have a solution suff^{ly} strong — But this diluted solution will not keep. — This solution must be injected into y^e Urethra & kept there for some time; it will dissolve y^e Mucus, & bring along with it y^e Venereal Matter. Sometimes we can ~~scarcely~~ see y^e Venereal Matter evidently mix'd with it — care must be taken, if this is done at a time y^e y^e Part does not want to evacuate y^e Matter till fresh Mucus is generated. — The Glans & Prepuce are also to be wash'd with rather a more concentrated a solution y^e y^e former. — If this is done before any of the symptoms arise, it will do, otherwise it will not, for then the Venereal Matter is got into the follicles of y^e Glands from whence it can't be got out. — Besides, w^h y^e Urethra is inflam'd, it cannot be apply'd. — Other Subst^s have been apply'd to coagulate y^e Mucus such as sp^{ts} of Lime, Saccharum Saturni, & solutions of white Vitriol, & sometimes they are y^e 2^d, but they are not so efficacious as y^e former solution: they frequently fail, but y^e other never does. — Besides, these coagulating Subst^s are powerful astring^{ts} & sedatives, & therefore destroy y^e sensibility & irritability of y^e parts.

To coagulate it

We shall next suppose y^e y^e Gonorrhoea is produced; there are two or three methods of curing this Dis^e.

Cure

diff^r Methods

The first is, by let^{ting} y^e Dis^e cure itself, if long be^{ing} permit^{ted} to go on till it has wash'd off y^e Venereal Matter, only guard^{ing} against all y^e Causes of Inflamⁿ. — The 2^d Method

is by y^e applicatⁿ of Subst^s to y^e Urethra w^h shall destroy y^e Venereal Matter in y^e part.

Lastly, by apply^{ing} Mercury to y^e System in general, whereby y^e Dis^e is prevented from operat^{ing} on y^e System. We shall shew y^e Advantages & Disadvantages of each of these Methods

Natural Cure

In the first place, y^e Gonorrhoea will often cure itself, if we only debar y^e Urine & let y^e Patient drink no Wine or any other inflam^{ing} Liquor, or to make use of any cond^{iments}. Exercise

To prevent Inflamⁿ

— The Venereal Matter is often wash'd off, & y^e Urine disappears; we have only in this case to avoid every Cause of Inflamⁿ whereby y^e Urethra or Glans might be affected.

To be in strength

when y^e Habit is strong & there is a tendency to an Inflam^{ing} Diathesis, y^e Inflamⁿ is easily abated by bleed^{ing}, but where no such Diathesis is present, it is rather determined by wind^{ing} of Body more irritable, in consequence of w^h y^e Cause will produce greater Inflamⁿ.

Of the Venereal Disease

Blas^t near y^e part will be of no use; for if y^e Inflamⁿ is abated for y^e present, & constant application of y^e Stimulus will cause it to recur as much as soon.

Inj^{ct} of Oil

Another means of abating y^e Inflamⁿ is y^e applicatⁿ of such subst^s as serve to cover y^e Ulthera & thereby defend it from y^e Stimulus of y^e Venereal Matter — by inject^g fresh Oils we considerably abate y^e Inflamⁿ. — This is not of so much use w^h apply^d to y^e Ulthera as when usd in an Inflamⁿ of y^e Glans & Prepuce; we can then take off y^e Inflamⁿ entirely by prevent^g y^e Venereal Matter from act^g on y^e parts. — In this Injection we sh^d make choice of such Oil as is only fluid in y^e heat of y^e human Body; for if y^e Oil is very fluid, it will soon come off again; whereas y^e other will stick for some time to y^e part; Hogslard or a solution of Suet in Express^d Oils may be made use of for this purpose.

Dilut^g Urine

The Neutral Salts contain'd in y^e Urine are an additional cause of Inflamⁿ; hence it is y^t such violent pain is felt after every such evacuatⁿ; y^e symptoms s^hd be increas'd; for this reason y^e Urine ought to be greatly diluted by drink^g largely of watery Fluids; this may be easily done in y^e day time, but in y^e night y^e Urine is considerably saturated with Neutral Salts; in order to avoid this inconcom^{en}cy, the Pat^t ought before he evacuates Urine in y^e morn^g to drink largely of some watery Fluid in w^h some Diuretic Med^l is mixed, such as y^e juice of Lemons, w^h in a quarter of an hour will greatly dilute y^e Urine — Some Vegetable Mucilage may be also taken, tho' we principally depend on dilut^g y^e Urine, w^h is done by y^e watery Fluid in w^h it is dissolv'd. — Some direct Nitre to be taken but I never saw any benefit recd from it; it is indeed taken in such small quantities as to do but little prejudice, tho' it is certain y^t if a solution of Nitre was injected into y^e Ulthera it w^d inflame y^e part considerably.

Fomentatⁿ of Ullthera

Fomentations & Cataplasms are of little use, unless where y^e Inflamⁿ is violent & y^e Chorde great, in y^e case y^t are of some service, tho' not very great.

There are y^e means commonly usd to take off y^e Inflamⁿ. — But sometimes these will not do, y^t pain is so violent & y^e Inflamⁿ is so great as to threaten a Gangrene of y^e part. — Sh^d this be y^e case, we have another means to

Of the Venereal Disease

Bath

remove it, w^{ch} is of Bath; w^{ch} will destroy of Irritability of of Part so if it will not be affected by Stimuli — But we w^{ld} never apply of Bath if we w^{ld} help it, because it diminishes of run^g, & therefore does not promote of cure, but rather protracts of Dis^e; this therefore is only to be apply'd wth of Inflammⁿ runs very high. — If of secretion is not sufficient & of Inflammⁿ not great, we w^{ld} use

by Secretion
by
Purgatives

Purgatives to increase of secret whereby of infectious matter is to be wash'd off. Wth of run^g is stop'd, Purgatives will bring it on again, as it causes not only of Glands of of Testes to secrete powerfully, but also of Glands in of Neighbouring Parts; tho' they have not always this effect — As it is a general Rule, if of secretion of one secretion, is of means of dismissing another; so if of Stimulus of of Purgative does not extend to of Urethra, it will diminish, instead of increas of secretion; And then the Stimulus recurs wth greater violence, increases of Inflammⁿ & produces Exacerbations — But where Purgatives increase of secret they may help to cure of Dis^e sooner than it w^{ld} naturally do. — 'Tis certain, Purgatives, sh^d never be apply'd where of Inflammⁿ is great; they wash of of mucus of of Urethra by their stimulus, & then of Neutral salts stimulate of Part much more. — They ought also never to be continu'd long, for by increas^g of Irritability they weaken the Patient consid^{ly}, & increase of Run^g w^{ch} it is afterwards difficult to stop. 'Tis of practice of some to purge every Day, till of Irritability is increas'd to a great degree, & then to stop of purg^g at once, & by this means to cure of Disease.

never apply'd
where of Inflammⁿ is great

But this is not a good method, for hereby Exacerbations are manytimes produced, & of system in general affected — the best way is, to give Purgatives in small quantities & thereby to increase of secret a little. — 'Tis somewhat difficult to determine wth of Venereal matter is wholly wash'd off; 'tis given as a sign by some of wth of Greenish colour is gone & of Run^g becomes white, if cure is perform'd, and they give Purgatives till this is effected — But of Purg^g may be long continu'd wth an abatement of this symptom; for of Green colour is a sign of of Inflammⁿ of of Membrane; & wth of Inflammⁿ is removed, wth the pain mak^g water is gone, & of mucus becomes

wth of Venereal
matter wash'd off

Of the Venereal Disease

White, are judge of. if Cure is effected; but we are not sure of this. Wth of General Matter is carried off, we need only leave of Putt alone, & if Secution will of itself go off in a week's time. But sometimes if Secution is continued, partly by if system be supported by if stimulus of if Neutral Salts, partly from Habit, & partly from

Artificial Mouth
of Cure
by
Injections

We now come to of Artifici^{al} Method of Cure, w^{ch} is perform^d by of Applicatⁿ
of these Subst^s w^{ch} destroy of Venereal Matter. — There has been much dispute
abt. of Applicatⁿ of Injections in of Venereal Dis^e. — It is certain of Castratⁿ
Injections do stop of secretⁿ for a time, tho it afterwards it returns wth greater
Violence; but w^{ch} is still worse, by this means Ulcers are generated by w^{ch}
of Dis^e is convey^d to of whole System. — But there are some Injections
w^{ch} have not this effect; Injections of Mercury have a tendency to destroy
of Venereal Infection — but most other Injections such as those prepar^d of White
Utriel or Preparat^s of Lead stop of run^g for a few hours only — they coagulate
of mucus on of surface of of Follicles of of Glands, while of Venereal matter
contain^d in of not hav^g a proper vent produces Ulcerations in them — There
may be a few Instances in w^{ch} an Injection of White Utriel has cur^d, tho I believe
they are exceed^g few. — But Mercurial Injections while of Inflamⁿ is consid^{le}
have different effects. — A solution of Corrosive Sublimate is of best preparatⁿ we
can use, because we can depend on this, whereas other Preparat^s may be decomp^d
by of Neutral Salt of of Urine. — Some of of Calces have been injected to good
purpose, & so has been of Mercurial Contm^t. — Calomel dissolv^d in Gum Arabic
does not do so well, as it is apt to lodge in particular places & to inflame of Mouth.

On Subject of Corrosive sublimate there is a much larger discharge y^t before,
But if Run & becomes thicker, & tho on every Injection y^t discharge for y^t present
becomes greater, y^t if continued for a fortnight, y^t Dis^c is Cur'd. — A very
dilute solution of y^t sublimate must be made use of, so^l must be thus prepar'd,
Dissolve a grain of y^t sublimate in an Ounce of Rose water; then 2 drams of this solution
is to be mix'd with 4 Ounces of y^e same water.

How prepar'd

Of the Venereal Disease

The first solution may be kept for use, but if later more dilute solution cannot, for if Mercury calcines & falls to y^e bottom, especially if it is exposed to y^e air. A little of this solution is to be thrown into y^e urethra, & kept there for some time & then evacuated. If y^e Part feels no pain, then y^e solution is too weak; if less & time tis administered therefore it must be more concentrated. Scarcely to give some pain after y^e solution is thrown out. — The Parts become less & less sensible & therefore tis necessary to increase y^e strength of y^e Injection. — This is to be used twice a day at y^e begining; the sooner tis apply'd the better; nor do we regard any degree of inflamⁿ, as it takes off y^e Inflamⁿ: sooner than any other means we can employ. — We may also at y^e same time inject a quantity of expressed Oil to prevent y^e Inflamⁿ: from risg to too great a height. — On continu^g of Injection for some time y^e Run^g goes off; but we must omit y^e Injectⁿ: on this Oct, otherwise y^e Run^g will be brot on again. — It must be further observ'd, if y^e Run^g in 3 or 4 Days becomes so thick y^e it glues y^e sides of y^e Urethra together so as not to be separated witht be^g torn asunder, & y^e Venereal Matter not be^g discharg'd may form an Ulcer; to prevent this, we put in a bit of linnen Rag to keep y^e sides asunder. — This method of treatm^t: will generally succeed; I try'd y^e Experiment on 40 Soldiers, & 8 out of 10 were cur'd, & some of y^m in a day or two.

the consequence
to be guarded ag^t

Objections again^t
this method

But this method is liable to some Objections: for we can't tell but there may be an Ulcer in y^e Urethra, & consequently if we stop y^e Run^g, y^e matter is carried into the System; this seldom happens if y^e Dis^e: is undertaken immediately on Infection — And the natural method of Cure is liable to y^e same Objection. — If we have reason to suspect an Ulcer form'd in y^e Urethra, we must apply Mercury to y^e System. Another Objection is, Those who fail of a Cure in this method, are depriv'd of y^e benefit of night. be deriv'd therefrom for y^e stop^g of y^e Run^g Gleet, wh^{ch} may run on for a considerable time. Provided there is no Ulcer, the Dis^e: is certainly cur'd in this way in 3 or 4 weeks, but if it is not cur'd, y^e Dis^e: runs on many months. — But there is this great Advantage attend^g this method, y^e where y^e Inflamⁿ: is very violent, tis effectually taken off by this method.

Advantages

Of the Venereal Disease

Again, where Pat^ts are weak & irritable, & therefore are not capable of bearing Evacuations or Mercurials, this method has of Advantage if it does not affect the System. — There is in all these astring^t Injections, a jet of Contractⁿ abt. of Bleed^g of the Uthra, but this soon goes off.

3^d methodBy Apply^g
Mercury to
System

Disadvantage

The last Method is, by apply^g Mercury to the System in general, whether the Dis^e affects the System or not; this is of most certain manner of Cure — The manner of applicatⁿ we shall presently shew. — Mercury given so as not to produce symptoms of great Irritability commonly cures the Dis^e in 3 or 4 weeks, which is sooner than it can be done in any other Method, except it be by Injection. — When we apply it so as to produce no great evacuation we are much less liable to Glands than by any other Method.

— Another Advantage is, if suppos^d there are Ulcers in the Uthra, & if System affected if Patient is never the less cur^d. — The only Objection is, if where of Inflammⁿ is considerable, Mercury increases of Inflammⁿ. — This is true in general, tho' it is not so here, for it decreases of Inflammⁿ; here more certainly if any other Method. — If there is any Inflamm^y Diathesis remain^g after Bleed^g, this will effectually take it off.

The only disadvantage attend^g it is, if w^e taken in considerable quantities, it begets such an Alteration in the Constitution, if of Patient takes cold, is liable to produce severe Gripings & Purgings, or to throw the Pat^t into a high Salivatⁿ, it also renders a weak Habit very irritable.

We cure these
diff^t methods us^d

These diff^t methods of Cure are applicable to diff^t Cases — If the Pat^t is suff^{tly} strong & is oblig^d to expose himself to cold & wet, we w^od prefer the Natural Method assist^d by Purging — If the Pat^t is very weak, we w^od chuse to use Injections — If the Pat^t is not weak, & is not expos^d to cold, we w^od chuse to apply Mercury to the System.

Of the Venerea

We shall next proceed to shew of manner of curing the Scies Venerea.

We know of no method to effect this but by the applicatⁿ of Mercury to the System; tho' there may be means we are ignorant of; tis P^r of Indians have a Plant of does cure it. — Now Mercury in its different Preparations will effect this provided it acts on the System; therefore we have had Mercury apply^d in every Form.

Mercury &
only used

Of the Venereal Disease

Sometimes in form of Vapour; or in y^e of Mercurial Salts; or soluble in Water, of its diff^r Preparat^{ns}. And particular Practitioners who have cur'd considerable Numbers by any particular Preparations have cry'd up that as y^e best of y^e kind; in consequence of w^{ch} most Preparat^{ns} have had at times their several Advocates. — But it is not a matter of indifference w^{ch} Preparatⁿ we make choice of, for y^e Pat^t is cur'd by some with much less attend^{mt} in y^e Septimⁿ y^e with others, & with less disagreeable Symptoms for y^e present; this Method we are to endeavour to make a discovery of.

Does not with
any evacuation

If you give y^e same Preparatⁿ so as to produce an Evacuati^on, in one Pat^t & to another so as to produce no evacuati^on, y^e later will be cur'd much sooner than y^e former — This is an Universal Rule. — Any Instance of this we have in the Mercurial Ointm^t; if you rub in a Dram of y^e Ointm^t & wrap y^e Pat^t throat in Flannel, Salivatⁿ is produced, but he is not so soon cur'd as if no Flannel was apply'd & no Salivatⁿ rais'd — Again, if you give Mercury so as to purge, it does not cure y^e Dis^e soon as if there was no purg^e produced. — In the second place we must observe, that the stronger y^e Habit is in general, the sooner y^e Dis^e is cur'd; in strong Habits Venereal Ulcers are much more easily heal'd than in others. — And it frequently

Cure sooner in
strong Habits

sometimes fails
in weak Habits

happens, y^e w^{ch} Mercury is given so as to render y^e Habit very weak & irritable, Mercury will not cure y^e Dis^e. — we are then oblig'd to omit y^e use of it, & to strengthen y^e system & then y^e same Preparation w^{ch} was unsuccessful before, will perform y^e cure.

It is probable y^e reason why Evacuati^ons prevent Mercury from curing y^e Dis^e is, y^e Body is render'd more irritable thereby; w^{ch} this Irritability takes place there is a bustling of exhibit^g of Bark along with Mercury. — Besides, y^e greater quantity of Mercury we give, provided no evacuati^on is produced, y^e sooner y^e Dis^e is cur'd. — If two drams

The great quantity
with Evacuati^on of Matter

of y^e Ointm^t are rub'd in, y^e Pat^t is cur'd much sooner than if one dram only is us'd provided y^e larger quant^y produces no evacuation. — But this does not hold true of y^e quantity of Mercury; for two or three grains of y^e Muria Mercurii will prove as efficacious as so many drams of y^e Mercurial Ointm^t; tho' an increased quantity of the same Preparation is more effectual than a less proportion of the same.

Of the Venereal Disease

The best Preparations

The Calces of Mercury such as of Mercurial Ointment & of Mercurius Calcinatus are of most powerfull Preparations as they can be given in consid^e quantities with^ot producing any great stimulus, or rais^g consid^l evacuations from any part of ^{the} Body.

Manner of apply^g
of Mercurial Ointm^t

The Mercurial Ointment is of best application which we can use & cures most certainly; the manner in w^{ch} it is to be apply'd so as to produce no salivation is this.

We rub in a Dram of it into ^{the} Legs & Thighs of ^{the} Patient so y^t it may not stick to ^{the} Cloaths; the Pat^t is to wear ^{the} same Drawers during ^{the} whole of ^{the} Cure.

The next night we omit ^{the} Application; but if an Inflamm^y Diathesis appears, we take off some blood; the 3^d night, if no sickness or sign of salivation appear,

we rub in a dram & a half — we are to omit ^{the} Application for ^{the} follow^g night

On the 5th night we are to make use of ^{the} same quantity if ^{the} above symptoms do not take place.

In some cases we may make use of two applications before any symptoms of spit^g come on; but in other cases ^{the} symptoms of inflam^m in ^{the} Mouth appear after ^{the} first application — as soon as these appear we are to

desist till these symptoms are abated; in this manner we are to go on rais^g but very slight symptoms of Inflamm^m in ^{the} Mouth.

'Tis proper to give an Opiate of 8 or 10 drops of Laudanum at night. — I never saw a Pat^t y^t did not be cured in this manner.

This method of Cure is liable to this Objection, if you get an immense quantity of Mercury into ^{the} Blood, & if ^{the} Pat^t is expos'd to Cold so

as to throw ^{the} Blood on ^{the} Intestines, it will produce Purging with severe gripings; or if it falls on ^{the} Glands it brings on a great salivation; when Persons are

oblig'd to expose ^{themselves} below to cold & wet, we w^old not make use of it; as it is necessary y^t ^{the} Pat^t sh^od keep within doors. — Other Preparations will cure

probably 3 Patients out of 10; But this is ^{the} most effectual.

By Calces

The best method of Cure is by ^{the} Calces of Mercury taken internally; But they have this disadvantage attend^g y^m, y^t they are not easily soluble in water. — The Mercurius Calcinatus is very apt to be carried into ^{the} Intestines so as to produce Purgings.

Of the Venereal Disease

We must therefore give Opium to prevent these Effects; and as we give of Mercury but once in 24 Hours, we chuse to give of Opium at twice, 8 or 10 Drops to a Dose. Merc. Calimat. may be given from half a Grain to 2 grains, soon will take even a larger dose than this; w^{ch} we increase if quantity of Mercury, tis necessary to measure the dose of Opium, so as to take a Grain twice in of Day.

The other Calces are given in of same manner, as Mercury rub'd with Soap; but this must be given in a larger quantity of of Mercurius Calimatus — The Appl^{ty} of of Calces is less liable to ill effects from Cold, than w^{ch} Mercury is apply'd externally.

With regard to those who make use of much Exercise, we may give of Mercurial Salts, such as of Corrosive Sublimate, w^{ch} is also much cheaper; & in warm climates they will rarely Cure; but in these cold climates I have seen many of 'em not be used wth the use of of Calces.

of Diet

With regard to of Diet, it sh^{ld} not be high, but such as is nourishing. — Fresh Rix is also of service, & is much better, than for of Pat^t to confine himself to his Room; tho' he sh^{ld} be warn'd against Expos^g himself to a cold & wet air, & of going abroad abt. of time of of Evening Passages.

10th The Bark must be join'd wth Mercury

Where the Pat^t is weak & irritable, of Bark may be join'd with Mercury; but it must not be given in strong Habits, for of Mercury is liable to produce an inflamy Diathesis, & where of Bark is given with it in such cases, very violent Thrushes & Headachs will take place, & of Pat^t is liable to be destroy'd from a Compression or Hemorrhage of of Brain. — But as soon as of Pat^t becomes weak, & of Pulse quick, then of Bark may be given to Advantage; tis not necessary to give it in large quantities, a dram or 2 in 24 Hours is sufficient.

How a Purge must be given

If a Purging comes on, we must treat it in of same manner as we do of 10th is produced by Cold: we must first evacuate by Purging, & then give Emetic Tartar to promote equable Circulatⁿ — We don't give Emetic Tartar wth of Mercury because it w^{ld} produce violent Swell^{gs}; & no evacuation is good; tho' this evacuatⁿ is not so pernicious as Purging. We w^{ld} treat a Rheumatism in of same manner as we do a cold.

Of the Venereal Disease

How Buboes

Sometimes we meet with Buboes of which will neither be resolved nor suppurate; in this case it will be better to omit the use of Mercury, & to send the Patient into the Country for the benefit of the Air & to use Exercise, which will cause them either to resolve or suppurate.

+ Ulcers

In Ulcers, the internal use of Mercury does not prevent our use of it in external Applications. — If these will not heal, if the Patient should go into the Country & use of different Methods for strengthening of the System, & then Mercury in the same Dose, will cure. In some of these Ulcers, if Cicuta is of Service, and also of Bark.

Manner of operation
not known

With regard to the Manner in which Mercury acts in this Disease I acknowledge myself totally ignorant. — There have been many Hypotheses given, but none are satisfactory. Some suppose, if it is by Evacuation produces its effect; but this is not true, because when any Evacuation would do. — Some have considered it as an Antisfermentative — it may be so. — Some suppose it unites with the Venereal Matter — And some have supposed it prevents the Body from being Irritable. — But these Hypotheses are not supported by Experiments. — We find that other Medicines which produce some effects with Mercury do not cure. — It seems to be by some particular Action of Mercury which tho' we are ignorant of at present, may be known hereafter.

Completeness of cure

Some have conceived, if Cannibine applied with Mercury will cause the Patient to leave off the Exhibition of a larger quantity of Mercury, & cure of Disease must sooner; I have tried it often, but never saw any such effects; it has neither hindered the Salivation nor contributed anything to the Cure of the Disease.

Of Pains in the
Bones after Mercury

When a strong Action of the Lymphatics is produced by any Stimulus, & that is continued for a considerable time, the Inflammatory Diathesis will continue after the Stimulus is removed, & the Arteries in particular parts will continue their Action — hence it is that Pains are felt in the Bones & Joints after the use of Mercury when the Venereal Matter is destroyed. — Not but that where there is a large quantity of Venereal Matter thrown into the cellular membrane of the Bone it produces Inflammation & Pain there. — But a large use of Mercury in any Disease will produce similar Pains; I had an opportunity of seeing this proved in the Hospital, where the Surgeon gave Mercury in all Ulcers, & if some pains were felt by the Patient of which were thus treated, tho' labouring under different diseases.

Of the Venereal Disease.

To cure these Pains therefore we give Sedatives, w^{ch} counteract of Mercury, and by Sassa. particularly of Chirisa-parilla — this, together wth Ten & Coffee are consid^d Venatives. Sassa, does not tend to cure of Dis^e, for if it is exhibited wth Mercury it prevents the Cure; tis only to take off y^e strong action of y^e Roterics of. we exhibit this Med^l. Mode producing equable Circulatⁿ by relaxⁿ of small Vessels & giv^g greater room for y^e Blood to circulate on of use here. —

Sometimes These Pains felt in y^e Extremities are frequently Rheumatic. The Pat^t is g^o order^d very irritable by y^e Exhibition of Mercury, on g^o out into y^e Air is liable to be affected with Cold; & Rheumatic Pains in his Legs and Arms are produced.

how treated This Rheumatism is to be treated in y^e same manner as chronic Rheumatism, by giving Med^l prod^g equable Circulatⁿ, & afterw^d Strengthen^g Med^l.

It has been y^e practice of some to bleed & purge, before y^e exhibition of y^e Mercury; but this is of no use unless when y^e Patient is strong; we rather chase to support his Strength. — Frequently there is a quantity of Mucus collected in y^e Stomach w^{ch} renders y^e Patient sick; here a gentle Emetic will be of service.

Mercury how destroyed.

We come next to consider w^{ch} becomes of y^e Mercury thrown into y^e system in the case of this Dis^e. — We find y^t in 24 Hours it gets into y^e system & produces its full effects there, afterw^d it diminishes more & more in its operation till it loses all sensible effects & is carried out by y^e evacuations — But Mercury has appear^d to be carried off in a greater proportion y^t one wd expect by these evacuations — Sometimes it has been found collected in y^e cavities of y^e Bones, & other cavities; but w^{ch} it is reduced to its metallic form, it loses its effects — But as y^e Bn gets into y^e Lungs it will there destroy its Salt, & by this means tis destroy^d more than by any other evacuation — But it is carried off by every other evacuation, tis found in y^e Sweat, & even in y^e Perspirable Matter as is evident by its effects on Rings & Watches; tis mixed with the Urine, & all other evacuat^{ns}. — We may therefore either increase y^e evacuat^{ns} to carry it off, or trust to y^e ordinary ones for this purpose, w^{ch} are suff^t to carry it off in a few Days.

Of the Gonorrhoea benigna & Fluor Albus.

Of the Gonorrhoea benigna, or Gleet, & Fluor albus.

We come next to show in w^t manner mild Gonorrhoea or Gleet is to be treated — After
if Venereal matter is carried off, or w^t a Gonorrhoea arises with^t infection, there are 3
ways of curing this kind — the first is by of application to of Parts, or to of system
in general; the second is, by of applicatⁿ of mod^s w^t produce an Inflam^y Diathesis;
3^{dly}, by of applicatⁿ of strengthening subst^s.

If of system in general is greatly weaken'd either by of running or by any other means,
then the applicatⁿ of strengthening subst^s is of of greatest service; but where of system
is universally strong, of applicatⁿ of such subst^s are of no use.

Astringents apply'd to the parts have their use — All kinds of Astringents have been apply'd,
such as Oak bark, Metalline salts, white Vitriol, Sugar of Lead &c. — If we use any
Injection, where there has been a venereal Infection, we chuse those of of Mercurial kind,
such as Injections made with Iodovive sublimat^e, or of Mercurial Ointment; these are of
most safe, for if there is any venereal matter left they destroy it as well as stop of running.

The next means is, of applicatⁿ of Astringents to of system, such as Plum or
Oak bark; these will sometimes ans^r of end, but they are not to be depend'd on.

The best & next successful method, is, by of applicatⁿ of those mod^s w^t produce an
Inflam^y Diathesis; such are of Balsams of Capivi, Canada, Peru &c.; or by of
applicatⁿ of Mercury itself or any other stimulus of will produce an Infl^y Diathesis.
But of applicatⁿ of these are uncertain; they sometimes increase of running by reproducing
of Inflam^y; but sometimes of running thus increas'd grows thicker & at length entirely
ceases. the same effects also follow if use of Mercurial Injections. — At other times
they act as Astringents, & stop of running gradually till it wholly disappears.

Mercury acts in of same manner when there is no venereal Infection; But if of use
of Mercury is long continu'd, it rather confirms of Gleet.

Not always successful. All these methods are precarious; sometimes one, & sometimes another method may succeed
sometimes of Rub^g of Mercurial Ointment or of Uthra will do; at other times, they are
so stubborn as to run on for 6 or 8 months in spite of all our efforts.

Of the Gonorrhoea benigna or Gleet & Fluor Albus

Superfluous & Country
This appears so trifling a disorder, if of Pat: expects to be speedily cur'd, & being disappointed in y^t. expectation, he runs from one Practitioner to another; & sometimes if Dis^e goes off of its own Accord. — I have known Patients cur'd by going into y^e Country & making use of exercise there.

Of Fluor Albus
As the Fluor Albus depends more on a weakness of y^e System in general, strengthening Meds are more peculiarly serviceable here.

Inflammⁿ of y^e Testicles how cur'd
I observed in y^e case of y^e Gonorrhoea if one, or both the Testicles are inflam^d; if this is y^e case, we are to attempt y^e cure by y^e common means of resolution such as bleed^g if there is an inflam^y & trachitis present; & to bring on y^e hung again by y^e use of Purgatives. — Vomits have been us'd for this purpose; but I never saw any benefit rec'd from them in any external Inflammation.

Med^s produc^g squable Circulⁿ are of less efficacy in external than internal Inflammⁿ.

I don't see on w^t. principle they can be of use; tho' undoubtedly Med^s may act in a manner y^t. we cannot account for. — After y^e Inflammⁿ is cur'd off (as I always consider'd y^e Pat: as cur'd in this case) I give Mercury; for some of the venereal matter may be absorb'd by y^e Lymphatics, for it is probable there is some excretion w^t. conveys y^e venereal matter thence; but Mercury is us'd after evacuations are practis'd.

Of Symplices
After all Inflammⁿs, Symplices will take place, & particularly in y^e venereal Dis^e. Such Symplices are liable to arise after y^e Ulcers are heal'd — These, if they continue to grow I cons^{der} as symptoms of y^e venereal matter be^{ing} still present — they are to be cut off, tho' they are very liable to grow again. — If y^e Symplice does not grow, it will probably go off of itself; or y^e Bark will be of considerable service in subdu^{ing} it.

I have thus gone thro' all y^e Scorchions w^t. take place in the mucous parts and except it be w^t. arising thro' weakness, from y^e Bladder & Ureters; this is commonly cur'd by strengthening Med^s. — We now proceed to Scrophulous Diseases, & first we shall treat of y^e

Of the Small Pox

Small Pox.

Cause

The Smallpox evidently arises from an infectious matter apply'd to the Body: its History evidently proves it to be so; for every Dist. of it is imported from other Countries if of its Nature. — A Dist. of it is peculiar to one Country & is bro't to another must be convey'd there by Infection, because we can't conceive it of Constitution of Air or of Inhabitants of a Country can be so alter'd as naturally to produce it. ^{a new} Dist.

History

The Smallpox came originally from the interior Parts of Africa. — The Mahometans extend'd their conquests greatly into Africa, & of Dist. was bro't in consequence thereof into the Eastern Parts of Arabia, & from thence it spread thro' the whole of Europe. — The Smallpox was also found in our new discoveries on the Coast of Africa.

Besides, if of Dist. is infectious is scarcely true. there never was an Instance of a Person contract'g this Dist. unless he has been near the Place where it prevail'd. Again, w^h one Person is affected with it, many other Persons are soon affected with of same. — It is not necessary if this Dist. sh^d be communicated

how communicated

by Touch in the manner of the Venereal is. if vapour arise from the infected Body is sufficient. — But this Dist. is not equally infectious in all its Stages. w^h the greatest quantity of variolar matter is found on the skin, or at the time of its station, it is most infectious. — It has a small peculiar to itself w^h is diff. from all other Dist.

does not act immediately

w^h if Infection is apply'd to the Body, of Person is not immediately affected therewith; this is scarcely in Inoculation, & by Persons com'g to some distance from the Place where they were infected before they are seiz'd. — In general, its manner to apply of infectious matter for some time to the Body before it takes effect, tho' I have known some Inst^s when its effects were instantaneous. — Sometimes there is a degree of sickness takes place on the first Infection, but it is where of affection is apply'd in a large Quantity. — 'tis difficult to account why of Dist. does not operate immediately on its application; 'tis probable, if as soon as it enters into the Body it acts as a ferment, & w^h it is accumulated in the Body, it produces the Disease.

reason why

Of the Small Pox

This appears probable, for if of infectious matter is apply'd in a very large quantity it produces of Dis^e immediately; if in a less quantity, some pre^l symptoms will arise; if in a smaller quantity still, it is some time before it acts.

Other causes may help to produce this Dis^e, such as Fear, or other Passions of y^e mind & much more of violent causes of Fever such as Putrid vapour.

When the Dis^e takes place, it begins in y^e evening at y^e time of y^e evening Paroxysm; it comes with y^e other symptoms of Fever, such as Pain in y^e Head & Back, nau^sea & with all y^e symptoms of y^e first Stage; then the hot fit comes on. It is difficult to distinguish this from other Fevers at first, because y^e symptoms are y^e same. The Fever goes on as other Fevers do, & imitates all their different kinds. In this Country tis a continued Fever; but in warm countries tis frequently an Intermitt. — Sometimes y^e Fever is Inflammatory; some times low & Nervous. — The Fever goes on, till there arises generally in y^e morning a number of Inflamm^s on the skin; this happens sooner or later, accord^g to diff^t circumstances; if y^e Fever is very violent, the Eruptions take place soon & they are very numerous; but if y^e Infection is not so great y^e Eruption is not so soon & comes on abt. y^e 4th Day — Sometimes it takes place on y^e 2^d or 3^d, & then y^e Eruption is very consid^l; but when it happens on y^e 4th or 5th it is much more moderate. — Med^s y^t produce Sweating will bring it on sooner.

Eruptions take place from 2^d to 5th Day

Local Med^s bring it on soon. Cold stands also Stimulants wth the Sweet.

Account for

But if you expose y^e Part to Cold, y^e Eruption may be kept off till y^e 6th or 7th Day — Sometimes Stimulat^g Subst^s produce sweat retard^g y^e Eruption till y^e 5th or 6th day & the Eruption becomes very considerable — Now these things being compar'd together, we conceive y^t a quantity of y^e infectious matter get^g on the skin, stimulates y^e skin to inflammation; when there is a great quantity of this matter in y^e Blood, it acts sooner on y^e skin, & y^e Inflammⁿ is considerable; & so on y^e contrary y^e less infectious matter y^e contained in y^e Blood, y^e longer it will be before it operates in this manner — If we apply sweat^g med^s, they will throw this matter out sooner & to a greater degree on y^e skin — If Stimulat^g Subst^s are apply'd & they do not sweat, the vessels of y^e skin become contracted, & y^e infectious matter becomes accumulated in y^e vessels.

Of the smallpox

This eruption w^h it takes place relieves of Pest. But this eruption is performed at
 three diff^t times; if Fever at 1st first eruption is lessend, but a 2^d Inflamⁿ comes on,
 w^h is also lessend by 2^d following eruption; at 3^d third eruption if Fever is comm^{ly}
 carried off. — After 2^d eruption takes place, it goes on to suppuration in
 of same manner as other Inflamⁿs. it consists of small Pilegmons in w^h
 a quanty of Pus is form'd, & w^h if Suppuratⁿ is perfect, w^h happens nearly in of
 same time in all of them, if ^{leaf} skin is destroy'd & dries; the Pus does not run
 out but is small in quanty, if water is evaporated & it dries into a scab.
 But this is of most dangerous suppuratⁿ if it can take place, on aut. of 2^d Inflamⁿ
 Diathesis w^h arises from of distention of of ^{leaf} skin from of true skin, in consequence
 of w^h a consid^l action of of vessels take place while of venous matter is form'd
 here. — There is also a quanty of it form'd in of blood vessels, or at least there is
 a quanty of Pus absorb'd so if there is such a Diathesis produced as frequently
 destroys of Patient. — Also there is a large quanty of blood made to circulate on
 of surface of of body by of stimulus if it is so universally apply'd, of internal
 vessels in consequence thereof become empty. — On the application of Cold or any
 Purgative, if blood is thrown on of internal Parts, if Pus is absorb'd, & of Patient
 is immediately destroy'd. — There are two of of principal dangers, but not of
 only ones, for sometimes of true Pus being form'd, an erysipelatous Inflamⁿ takes place,
 the leaf skin is rais'd & fill'd with a watery fluid; this brings on great circumstances
 of Irritation especially if of Habit is weak, a Delirium takes place & many times
 a Gangrene is form'd in of Parts.
 Sometimes if Fever continues & is not carried off by of Inflamⁿ, whereby of suppuratⁿ
 does not take place perfectly, & from of Fever & stimulus apply'd of Part is so weaken'd
 if he is cut off. — Now of number of Pustles makes a consid^l variation.
 for if of Pustles are very numerous there must be a greater stimulus on of surface of
 the skin & therefore of Inflamⁿ Diathesis must be greater; but this is not of only danger

Eruptions at 3
diff. times

Suppuration

dangerous & why

for Infl. Diathesis

for cold

for watery suppurat.

for continuance of Fever

for number of Pustles

Of the small Pox.

For if Pus-
tules run
into each other

for w^{ch} if Pus-
tules are very numerous & touch one another they run into each other
first after y^e suppuratⁿ is perfect, if Pus-
tules continue & it is a long time before y^e
scarf skin is destroy'd by w^{ch} means if there is consid^{ly} lengthen'd. If this
shd happen on y^e face there is more danger than any where else because y^e scarf
skin is there harder & more difficult to be separated from y^e true skin.

From a sort of
y^e salivary

Besides, in y^e confluent sort there arises another danger, As y^e eruption takes place sooner
& y^e fermentatⁿ goes on faster, a greatⁿ quanty of variolous Matter is form'd; this
stimulates y^e Intestines in C^o: so y^e a Diarrhoea is produce'd, & in then y^e salivary
Glands are stimulated so y^e a greatⁿ secretⁿ arises fr^m thence; this does no harm
while it continues, but after y^e height of y^e Dis^e is over this secretⁿ is apt to stop,
in consequence of w^{ch} y^e matter secreted on y^e Membrane is changed into a nature
resembling Pus, this prevents y^e secretion, & if Pat^t is in danger of suffocation

The confluent small pox therefore destroys fr^m y^e quantity of variolous matter found in y^e Dis^e.

Why y^e confluent is
longer in y^e suppuratⁿ

As in all suppuratⁿ if take place, Pus is perfectly form'd abt y^e 4th Day, so it is here,
y^e suppuratⁿ is completed abt y^e time; the scarf skin is destroy'd in y^e distinct sort
abt y^e 11th Day, y^e Pat^t becomes free from Inflamⁿ, Diathesis ~~abts~~ ^{abts} & recovers

But in y^e confluent sort, tho' there is a quantity of Pus form'd, y^e Pus-
tles don't break
for 4 or 5 Days longer & y^e Pat^t is liable to be destroy'd on y^e out.

Advantage from y^e
mild y^e Milder sort

There is one Advantage attends y^e Pat^t which is, y^e y^e Eruptions first take place on y^e
Head & Breast, & afterwards on y^e Extremities. — This arises from a natural Cause,

w^{ch} is, y^e all Swellgs arise first abt those Parts on out: of y^e largeness of y^e vessels there.
The Swellgs abt y^e Head & Breast being to sink, y^e swellgs in y^e Extremities take place

If the Stimulus was suddenly taken off by y^e Pus-
tles sinkg, y^e Blood falling on y^e
internal vessels of Pat^t w^{ch} be liable to be destroy'd; but y^e Pus-
tles being perfect
in y^e Hands & feet, as these swell, y^e blood is by this means kept on y^e surface of the Body
so y^e y^e Swellgs subside gradually & y^e Pat^t recovers.

By this Drunk after
y^e Dis^e is cur'd.

w^{ch} y^e Pus-
tles are all subside'd & y^e Pat^t gets well, yet y^e vast quantity of variolous matter
y^e is left in y^e Blood left is liable to do this mischief; sometimes it excites an Inflamⁿ, Diathesis

Of the SmallPox

At other times it ferments wth cellular membrane & produces large Abscesses. The Inflam^y Glandula is kept up for a consid^{le} time wth Pat^t is liable to Inflamⁿ for some years, especially at y^e time of y^e year w^h he was seiz^d wth y^e Disease.

Of Inoculation

Of Inoculation

It is found by Experience, y^t w^h y^e Dis^e is apply^d by Inoculatⁿ it is milder yⁿ w^h apply^d in a natural way, this method therefore has of late been much practis^d with a view to avoid y^e Inconvenienc^{es} & Danger^{ous} arising from y^e Dis^e.

Its advantage in apply^g only a small quantity

It is not so material whether y^e Dis^e is apply^d in a Fluid State or in vapour, but y^e danger arises from y^e quantity apply^d. for if we inoculate wth a large quantity in a liquid form y^e Dis^e will arise to so great a height as it will in a natural way, tho^{ugh} the vapour does afflu^t y^e Lungs. — I conceive, therefore, y^t it is best to apply y^e matter

Of preparing y^e inoculatⁿ matter

in as small a quantity as may be. — It is usually apply^d to a wound made in one or both Arms

The Inoculatⁿ matter is obtain^d by runⁿg a Thread thro^{ugh} a Pistle of y^e Small Pox, this Thread is to be kept in Wool, it is not material y^t it becomes dry. — It has been a Question, whether y^e matter sho^{uld} be taken from a Pat^t y^t has y^e Dis^e slightly, or in a large quantity; those who have practis^d both methods apart, there is no difference.

But w^h we are to chuse, we sho^{uld} prefer tak^g it from y^e Distinct rather yⁿ y^e confluent sort: we wo^{uld} chuse a Pat^t y^t has large Pistles, & these fill^d with good matter; but if we wanted to inoculate immediately, we wo^{uld} not scruple to take y^e matter from y^e confluent sort if no other co^{uld} be had; as it is not a different matter y^t produces these two sorts, but y^e same matter in diff^{erent} quantities. — This Inoculatⁿ matter may be kept for some time, it retains its full Virtue for 3 weeks & it has taken effect in as many Months, but it is not so certain in its operation, as it probably loses some of its fermentative Power, & in consequence thereof becomes more mild; but this has not been fully determin^d. — I have made some trials of this kind, & it seem^d probable to me, y^t y^e Dis^e was not so violent w^h y^e matter was kept for a fortnight, as y^e same matter was w^h immediately apply^d.

Of preparing the body for inoculatⁿ

As to y^e preparation of y^e body for receiv^g this Dis^e, it is necessary y^t y^e Pat^t sho^{uld} be tolerably strong, but not too strong. — If y^e Pat^t is very robust & y^e Dis^e is apply^d in y^e spring, an Inflam^y Glandula will be apt to arise; but if he is very weak, y^e matter will not rise so well.

Of the small pox

By Blue if of
Patt. is strong
- clearing of Primæviæ

Of Mercur & Antimony
given for this purpose

Of Age most
proper for Inoculⁿ

Chr. under 6 months
or above 3 years

or grows Persons

If the Patt. is too strong, we w^d take away some blood; if too weak, we w^d strengthen the Habit. — It is necessary to cleanse of Primæviæ, & to avoid of Causes of Fever

We w^d therefore give a gentle Purgative before we make of Inoculation. — There is no necessity for any other Preparatⁿ in this cold Climate; as there is not one of dies here in 5 or 600. — Some who have prepared their Pattⁿ by giving considerable quantities of Mercury have lost many, by rendering it very irritable. — It is not possible to manage matters so but there will be one lost out of 5 or 600, as there may be other causes of Fever applied w^{ch} may render it Dis^e fatal. — In warm Climates, Inoculatⁿ does not succeed so well, there is therefore some Preparatⁿ necessary; this is done by giving of Pattⁿ a quantity of Mercury & Antimony. — It is possible there may be attended wth some Advantage, for if Antimony may serve to keep off if Fever if w^d otherwise arise; & Mercurial Med^s as they increase of Action of if Arteries, may cause a better suppuratⁿ so if it may not be so ready to become of Watery smallpox, w^{ch} in warm Climates it is very apt to do.

But the Acts we have are not sufficiently Authenticated to warrant our use of these Med^s, nor ~~it~~ does ~~not~~ appear if of Pattⁿ might not as well have gone thro' the Dis^e wth if we of them if there were a number of Comparative Experi^m^{ts} made, we might form a better Judgm^t. But here we have no occasion for them; if Pattⁿ are well attended, there is no danger.

It is of great Irritability if prevails in warm Climates if renders this Dis^e so fatal; in if North of Scotland there is not one in a 100 if dies in a natural way. — And as large quantities of Mercury have a tendency to increase of Irritability, it appears in if great prejudice.

The next thing to be consid^d is of Age of if Pattⁿ. — In very young Subjects, if Dis^e soon runs to suppuratⁿ wth any Inflammⁿ, as if Parts are so distensible; the younger Ch^{rs} are therefore, the better they go thro' it. — But there is one Circumstance attending young Ch^{rs} w^{ch} prevents us from applying it, w^{ch} is, if at 6 Months they are apt to cut their Teeth w^{ch} produces symptoms of Inflammⁿ — it is not proper to perform this Operatⁿ in if time of Teething. — the best way is to do it before. — Another thing to be consid^d is, if the Mother is very Amorous & suckles her child, if Milk in consequence of if Anxiety is apt to turn Sour & to produce Gripings in if Child; on this acct. therefore we w^d not choose to inoculate at that Age — If we do not now Inoculate we defer it till 3 years of Age or till the Person is grown up.

Of the Small Pox.

Of Time of year With regard to time of year in w^{ch} this Operation is to be performed; we w^{ould} not chuse to inoculate w^{hen} weather is very cold, because it is then difficult to keep it properly warm & thereby prevent it of various matter from falling inward. — Nor w^{ould} we chuse very warm weather, because it is difficult to keep it Pat^t sufficiently cool. — The Spring or of Autumn are therefore the most suitable seasons, & the Spring is to be prefer'd because of Body is not then so irritable, & therefore suppurat^{ion} rise better — But it is not very material at w^h of these seasons it is done.

Operat^{ion} how perform'd The Operat^{ion} is a very slight one, there is a scratch made in of Arm at of insertion of of Deltoid Muscle, & of infused Thread is plac'd therein. — I think it is better to inoculate in one Arm only, provided of Thread is not displac'd. this will do effectually, & we find it: when there is a large quant^y of matter apply'd, if Dis^e is of more violent; but it is not very material whether it is in one or both. — After of operat^{ion} is perform'd, it is not necessary to give any Med^{ic}; we are to keep of Primes Via char; to give Food of easy digestion, & to keep of Pat^t from cold — w^{hen} of Pat^t is expos'd to cold, there is a more violent Fever, & in general of eruption is greater, or else if Fever does not go off. the same may be said of Fear or other Passions of of Mind. — In America, after of Operat^{ion} is perform'd they give a small quant^y of Regulus of Antimony & Mercury — But if we were to use any, it sh^{ould} be of Emetic Sector — they generally make use of a Purgative or two dur^{ing} of time.

Cure The small pox by Inoculation is to be treated in of very same manner as of natural Dis^e, we shall not therefore observe any difference in their treatm^t. — There is this difference, if by Inoculat^{ion} there are four Bustles, & if 2 day Fever does not take place to of degre as in of Nat^l Method w^h frequently cuts off of Pat^t. — If no Bustles arise in consequence of the Inoculat^{ion}, if notwithstanding there is a Fever, & a consid^{able} discharge from of boon this will be sufficient. — Sometimes of Pat^t may take of infection in a Nat^l way before of Inoculat^{ion} is perform'd, w^h may be known by of Bustles appear^{ing} sooner than ordinary — w^{hen} this is of case, & especially if of Pat^t or of Nat^l Infection is trouble'd with a Gradual re, there is of greatest danger, & there is but little hopes of his recovery. In this case we w^{ould} first apply Emetic Sector to of Stomach so as to Conid^{able} in of manner already direct'd in of Treatm^t of Fever, & also give a gentle Purgative.

Of the Small pox.

The Fever comes on in the same manner as every other Fever does, & unless we know if the Pox has been exposed to Infection we can't determine at its first seizure if it is of this kind.

If the Fever appears to be of an Inflammatory Nature, it will be unskillful to take away a quantity of blood as in the Inflammatory Fever. But it is far from being of service to draw blood where there are no symptoms of Inflammation.

Now is a Question, whether it is proper to diminish the Fever by use of Mild producing Equable Circulation. — This may be done on the 1st & 2^d day; but if we should bring on a crisis sweat will be produced, whereby a greater quantity of various Matter would be thrown out on the skin than otherwise would be. — These should not therefore be given after the 2^d day. They may be given the first being with Advantage so as to produce bowels, which will probably be also accompanied with a Stool.

The Pox is not to take stimulating Subst^{ce} in order to promote the Eruption on any Account because it is of quantity of the Eruption abt. the Head & Face which produces the Danger; if we give the Spices, we shall throw out a large quantity of various Matter on those parts.

Sometimes in Children abt. the time of Eruption, fall into Fits, but this is of no great consequence they take place on out of the Exacerbation being more violent than the former ones.

After the Eruption has taken place, we are to avoid the Dangers of the Pox which is liable to.

One is, if during the time of the Fever & Eruption the Pox is prevented from sleep, so if he becomes delirious on the account; in this case Opium is to be given. — Dr Sydenham has advised Opium to be given thro' the whole of the Disease, I can't think this is advisable; the contrary of Opium tho' in a case before us is highly proper. — If the Pox sleeps tolerably, Opium is as increase of Danger liable to do mischief especially in strong Habits by increasing the Inflammatory Diathesis.

The Pox is liable to be exacerbated thro' the whole of the Disease, & if accumulated Forces increases the danger — we dare not apply Purgatives, for by two or three loose Stools of blood is drawn from the surface of the Body, & if the Pox dies, we would avoid this costiveness by forbearing the use of Opium. — Lastly, Opium is liable to thicken the mucus of the bronchiae from the Lungs, so if the Pox is more liable to suffocation — so if Opium are employ'd with these disadvantages; & I think I have seen much mischief done by them. — But on the other hand, Opium are of great use in the suppression of the matter if the matter formed is very thin & watery containing a considerable quantity of neutral salts.

Of the Smallpox.

w^d Stimulate y^e Skin & produce an Eruption thro' y^e whole Body; they will produce a more laudable Suppuration. — w^d we give Opates in all Inflam^y Cases, w^d

w^d y^e best Preparation

w^d chuse to make use of y^e Syrup of Diacodium rather than give y^e Opium in Subst^e or infus'd in Spirits. tho' no great mischief can be expected from y^e Use of y^e Opium yet every degree of Stimulus is prejudicial in Inflam^y which arise from a Stimulus y^e is apply'd to y^e Part — we w^d therefore prefer y^e Syrup, or rather an Extract made of y^e white Poppy heads, to y^e Extract of Opium itself. Besides, in our Solutions of Opium there are Stimulat^y & Subst^e added with a view to correct y^e ill Effects of y^e Opium.

If the Suppuratⁿ is taking place properly, we are to administer no kind of Med^o where — but if y^e Pat^t is not satisfied with^t tak^g someth^g, we take care to give him w^t will do him no harm; tho' if y^e Suppuratⁿ is going on properly, if we do anyth^g, we may do

If Suppuratⁿ is watery; Dashed wth Opium

Mischief. — If the Suppuratⁿ is thin & watery, we may give Opium & Bark w^t Advantage

Bark particularly in this as well as all other Suppuratⁿs has great Effects to change this thin Matter into Laudable Suppuration. — We sh^d give Bark in all Cases, if it was not for its increas^g y^e Inflam^y Diathesis, & also in y^e confluent smallpox, it is liable to thicken y^e Mucus, & to bring on a Suffocation — but where there is not a proper Suppuratⁿ we give it to Advantage.

The Consequence of the Bark.

w^d y^e Patient sink — Wine & spices

If the Venereal Matter falls inwardly tis necessary to give some Stimulat^y & Subst^e such as a glass of Wine with spices whereby y^e Circulatⁿ is br^ought again on y^e Skin.

Callosities

— Rhubarb or Clysters.

Where Costiveness takes place, if y^e Pat^t has been 4 or 5 Days with^t a Stool, we may relieve him by means of Rhubarb given with great Care so as to produce one Stool only; or we may evacuate y^e Intestines by means of a Clyster. — but there is great danger in produc^g more than one Stool, y^e Pustles are apt to sink, & y^e Pat^t to die instantly.

Safety of y^e Patient not com^g — Blister

We will next suppose y^t y^e Suppuratⁿ goes on well, but y^t y^e Swelling of y^e Throat & Feet do not come on, w^d y^e Swelling of y^e Face begins to subside; here we must apply Blisters to y^e Legs & Arms, & Sinapisms to y^e Feet, by w^t means we may produce Swell^g in those parts.

Of the Measles

Of the Measles

This Dis^e is originally a native of the same country with the small pox, & was first introduced into Europe at the same time; w^{ch} shows it to be an Infectious Dis^e. w^{ch} like the small pox may be communicated by vapour & also in a fluid state; but we have not been able to make any Experi^{mt} succeed in its Inoculation as we have done in the other. — If we take some of the Blood drawn from a Person affected with this Dis^e & make a wound in a healthy Person, & apply the Blood to the wound, it inoculat^d will sometimes produce the Dis^e; I have seen it succeed in two Instances out of 12 Persons w^{ch} were thus treated, tho' the Dis^e was as violent as if apply^d in the natural way.

Cause
Infection

This Dis^e does not show itself immediately on Infection, it is usually 3 or 4 Days before it makes its appearance, but it usually appears sooner than the small pox.

Diagnosis &
Prognosis

In the Measles, the mucous Glands of the Eyes, nose, Lungs are affected, so that there is a running of the Eyes, & nose attended with a Cough. — Before the Eruption comes on, if Fever is a common one, but attend^d with an Inflamⁿ of the mucous Membrane in some part of the Body, but principally of the Throat & Lungs, tho' it is sometimes accompanied with a Diarrhoea. — This Dis^e goes on in the same manner as the small pox, but sometimes mild & sometimes more violent; sometimes attend^d with Inflamⁿ & symptoms, but seldom with those arising from weakness; but it is more liable to be attend^d with Inflamⁿ & symptoms than the small pox is. — On the 3^d or 4th

Eruption on the Body

Day of Eruption comes out, & takes off the Fever. — The great difference betwⁿ the Eruptions in these two Dis^e is this, that whereas the Eruptions in the small pox turn out to be a number of Phlegmons, whereas the Eruptions in the Measles are Dysipolaceous; & therefore the danger in the latter is not so great as in the former. — Sometimes there are a number of head spots in the skin, w^{ch} tho' no rising can be discern'd yet may be easily felt. — If the Dis^e is violent there are small Blisters, also the Eruptions are in Clusters irregular ab^t their edges; whereas in the small pox the Swell^{gs} are round, & at first distinct.

Mistaken with Catarrh

During the whole of the Eruption, the symptoms of Catarrh continue, there is a running at the nose & eyes attended with a Cough, & if the Dis^e is violent, the Inflamⁿ & Diarrhoea is also considerable.

Of the Measles

The Dis^e is not very dangerous at this Period, if principal Danger arises wth the Eruption goes off, w^{ch} is in abt. 4 or 5 Days after they appear; there is then a kind of Peeling Matter comes off skin, or little parts of it leaf skin come off. — At this time if symptoms of Inflamm^y Diathesis are consid^{ly} increas'd; if symptoms of Catarrh are also increas'd, & if mucus puts on appearance of Pus & sometimes produces actual Exulcerat^{ns} in of Lungs. — The Pat^t does not at first appear very ill; there is a little hardness in of Pulse w^{ch} continues; if Pat^t loses his Appetite, the Muscles lose their force; if Pulse becomes small, the Breath^g difficult, the Cough increases, the Mucus resembles Pus, & Ulcers are form'd in of Lungs; the Pat^t spits up blood, & a hectic Fever comes on w^{ch} at length destroys him — These symptoms chiefly take place in sanguine Constitutions. — In other cases, if Inflamm^y symptoms w^{ch} w^{ch} of Pat^t is affected go off gradually in a few Days.

Cure
If the Dis^e begins wth Inflamm^y symptoms, we begin wth taking off a quantity of blood & soon to repeat it if necessary. — Attention must be paid to of Cough; Express'd Oils & Vegetable Mucilages may be given to prevent too great an inflam^{ty} of of Mucous Membrane. — We are not in any danger from bleed^g here as in of smallpox we do not cause of Dis^e to fall inwardly; nor are we afraid if of Pat^t is bound to give a Laxative, as there is no danger of carry^g of blood from of Surface of of Body. — We attend to of Cough, & keep off of Inflamm^y Diathesis by bleed^g, & keep of Belly open; this we continue to do till of Eruption goes off.

Laxative
w^{ch} of Eruption disappears, if of Pat^t is strong tis necessary to bleed at any rate; if there is of least hardness of of Pulse, if Dis^e we have already mention'd is apt to take place, & is very difficultly got rid of — In Persons from 10 years of Age to 24, & especially if of Sanguineous Temperam^{ty}, tis necessary to bleed & soon largely till the Inflamm^y Diathesis is got of better of. — It is necessary also not only to defend the Mucous Membrane; but also to give Mode producy Equable Circulat^{ns}, to cause of blood to circulate on of Surface of of Body; & if there is a great soreness of of Breast, Blisters may be apply'd to of Back.

Of the Military Fever.

If the management of Pat^t in this manner there will be but little danger; his necessary however if Pat^t is in Town, if he should be carried into y^e Country, if y^e symptoms affect y^e Breast may not recur. — Tho' the Pat^t seems to lose his strength, & y^e Pulse to be but small, yet blood will increase y^e Pulse. — Exercise in a pure Air will also be of service — Med^t producing squable humors are of advantage at this time. Sometimes y^e symptoms of weakness come on, & then it is necessary to support y^e Pat^t but this is seldom y^e case.

Of the Military Fever.

This is a Dist^t y^t is almost peculiar to Childbed women. — We ought to distinguish below y^e Dist^t y^t go by this name. — There is an Eruption takes place on y^e skin, w^{ch} appears like little Blisters with an Inflam^t at y^e bottom of y^e ^{Pustles} — the same Inflam^t may be produced in healthy Persons by sweat alone; for if a Person is kept in a sweat for 4 or 5 days, there is more sweat thrown out than can pass thro' y^e pores of skin, & therefore there are little Blisters form'd — but this is by no means to be consid^d as a Military Fever — there is no large sweat produced by w^{ch} is attended with this symptom; those who have been cur'd of Rheumatism have had this appearance of Pustles, and so have women in Childbed where consid^d sweats are produced. — Some have denied that there is any Military Fever besides this; but tis certain that there are Eruptions w^{ch} do take off y^e Fever. — Some have call'd little spots w^{ch} rise on y^e skin by y^e name of Military Eruptions; these are also call'd by y^e name of Petechie. — A Military Fever happens principally to women in Childbed; it may happen to others, but I never saw an Instance of it. — Women in such circumstances are very subject to Fevers; a slight cold, or Anxiety of mind will produce a Fever especially if y^e Constitution is delicate.

The Fever comes on with y^e common symptoms, such as Pain in y^e Head, Lowness &c. Sometimes, these go on for a day or two, but at other times these Eruptions appear at y^e first Leaves bat^t. — They appear somewhat like y^e Eruptions in y^e small pox; they consist of little Blisters with some degree of redness at their root: w^{ch} gives y^e a florid appearance.

Almost peculiar to
young women

Distinguished from
others by local

Diagnosis & Prognosis

Of the Miliary Fever

Of its Cause

Simple terminatio

apt to recur

Form of its Morbidity

Cure

Support of strength

by wine

10th these eruptions appear, if Fever goes off, or at least all its symptoms are considerably relieved — And this relief constitutes its difference betw^o those miliary Eruptions & those w^{ch} take place in consequence of Sweat?, w^{ch} do not relieve of Fever.

Now whether there is any peculiar Matter in it bloodless w^{ch} produces such Eruptions we can't determine. — We can only observe, if of Chyle remains for a long time in Blood vessels, & that it is now particularly secreted into it Breasts. — There is always a particular sour smell attending this Dis^e. — whether there may be some Acid running in it Blood, or whether it is owing to some other Cause we can't determine, but it is certain y^t this is its Case. — If the Pat^t is kept easy, these small Pustles seem to be filled with Pus, if scab skin peels off, & appears powdery. — This simple termination is not very apt to take place for if there is of least degree of Cold, if Fever recurs, & if Eruptions disappear. — The Eruptions go off in consequence of if Fever recurs, tho the Fever does not recur in consequence of if Eruptions disappear, for if Fever is seldom wholly taken off. — On the Indens recuring of Headach, Pain in Loins & Back take place. — Sometimes if these recur to a consid^l degree, on the going off of if Eruptions, if Pat^t faints, & dies — But if of Exacerbation takes place, a fresh crop of Eruptions appear whereby if Dis^e is continued, & many times by fresh crops taking place of Disease is prolonged for three weeks & upwards & at length if Pat^t is cut off.

In this Dis^e there are great symptoms of weakness; the Fever appears to be of a low, nervous kind, & many times has such Exacerbations & Relaxations attending it y^t it puts on if appearance of an Intermittent.

In this Dis^e if principal thing we have to do is, to support if strength of if Pat^t; to avoid if Causes of Fever; & if if Pustles go off to apply Stimuli to if Stomach to cause y^m to recur again.

The strength of if Patient is to be supported by if use of wine, & by a Nourish^g Diet.

In this Fever Persons will generally bear Food of greater Nourishment than any other.

Animal Broths may be made use of with^o danger. — Weak wines may be given to Advantage; if if Pat^t is weak, it must be given in larger quantity, but not so much, if strong.

Of the Scarlet Fever

Other Stimuli such as Musk & Camphire, are not so proper in these weak & irritable Habits because they are apt to quicken the Pulse.
 The Bark is of service to destroy if irritability whereby if Pat^t is strengthened & if Dis^e prevented from renewing. — The Patient's Stomach can't bear large Doses, so if we are oblig'd to give it in Decoction or Infusion, rather than in substance. If a Patient falls in, it is necessary to give some Stimulat^g substances.
 Med^t produce of equable Circulation may be useful, even if not if they produce violent Sweats & great weakness. — The Stimuli if are to be us'd shod be of a Class of Antispasmodics, such as Volatile Alkali, Camphire, Castoreo. — The Pat^t shod always have by y^e some Med^t of this kind, in case of Accidents.
 In y^e mean time great care is to be taken if of Pat^t is freed from Anxiety, & if no cold be apply'd — By w^h means if Dis^e may be cur'd.

Of the Scarlet Fever

This is a kind of universal Erysipelas w^h happens in y^e Summer Season. — A Fever takes place w^h continues for some time, then there arises an Inflamⁿ over y^e Face & Breast together with inflam'd Spots over y^e whole Body. — We mention this Dis^e as Eruptive in compliance with common Custom; but it is in reality an Erysipelatous Fever.

We have little more to do in this Dis^e y^e to take care if of Pat^t is not expos'd to fresh causes of Fever; tis attend'd with little danger & goes off of itself.

If the Fever shod not go off, & symptoms of weakness shod take place we must support the Patient in y^e manner directed under the head of violent Fever.

If Inflam^y symptoms take place in y^e begin^g of y^e Dis^e, it is necessary to take off some blood.

Thus we have gone thro' y^e Doctrine of Fevers, & have also consid^d Inflammations whether of y^e whole system or of particular parts; we now proceed to y^e Consideration of Rheumatism: — we shod first shew y^e Doctrine of Rheumatism in general, & then consider y^e particular kinds of Rheumatism if take place.

Of Rheumatism in general.

Of Rheumatism in general.

Cause

cold & only one

Rheumatism is produced by one cause only, if application of cold to y^e body.

It is rather more difficult in its treatment than either Inflammⁿ or Fever, because tho' it rises at first with^t symptoms of Inflammⁿ, yet it afterwards becomes complicated with it. — I will be necessary for us to show in w^t manner this Dis^r takes place.

Diagnosis

On y^e applicatⁿ of cold y^e first symptoms y^t arise are, Paleness & contraction of y^e skin, together with Pain & Inaction in y^e part affected. — Sometimes no Pain takes place, but only an Inaction of y^e Muscles; but if y^e Dis^r arises to any height there is always a Pain attend^g this inability of Motion. — The Paleness of y^e skin shews y^t there

Paleness of skin

Inability of motion

is a Contraction takes place in y^e vessels of y^e Part & y^t but a small quantity of Blood circulates there. — The Inability of Motion arises from want of a proper circulation thro' the part; the Blood (as well as y^e Nervous Influence) is necessary to y^e Motion of y^e part.

Pain

— The Pain is produced, by y^e Arteries act^g strongly & throw^g the Blood upon y^e small vessels with an endeavor to disperse them.

Opposⁿ of Dis^r

Much Dispute has arisen abt^t y^e seat of this Dis^r. — for my own part, I think, y^t the whole of y^e member consist^g of skin, Muscles & membranes, is affected. — Tho' skin appears to be affected by y^e Palleness discover'd there; the Muscles are affected, because their Motion is lost; the Membranes are affected because they are y^e chief seat of y^e Pain & y^t is capable of distinction of any of y^e large parts.

Inflamⁿ Dis^r

Swelling

But there are not y^e most troublesome symptoms in this Dis^r; for y^e Arteries endeavor to dilate, y^e contracted capillaries, produces pain, & this stimulus produces an Inflamⁿ Dis^r thro' y^e whole system. — Along with y^e Pain, w^t violent, there arises a swelling, & considerable quantity of fluids are thrown into y^e cellular membrane; there is also a mottled kind of redness prevails in y^e part, w^t is owing to some of y^e capillaries be^g freed upon while others remain shut. — The Arteries continue to act till such time as y^e contraction of y^e vessels is entirely got of better of. — The swelling mentioned is occasion'd by a quantity of Serum & coagulable Lymph being thrown into y^e cellular membrane; but there are no red globules here as in y^e case of Inflamⁿ. — The coagulable Lymph sometimes coagulates in y^e cellular membrane; hence it is y^t y^e swelling continue a long time after y^e Pain is gone.

— how caus'd

Of Rheumatism in general.

Varieties

- Acts as if it were
insufficient -
or too much

This is of simple state of Dis. but it is liable to a considerable number of varieties. Sometimes the action of the vessels is not sufficient to open the capillary vessels so that if Dis continues for some years, & pains arise at times. — At other times of Inflam. Exanthema is mixed in the system in gen^l. & it to such a height as to destroy him, either by throwing too great a quantity of blood on the brain, or else if Pain prevents it from sleep, whereby a Delirium arises w^{ch} destroys the Patient. — Besides some degree of Inflam. & Druth. continuing thro' the whole duration of the Dis.

apt to recur

After this Dis is carried off, there is none so apt to recur as the supplac. of the slightest cold.

So if after the Past has of Rheumatism 3 or 6 times he becomes so habituated to it, that he is seldom long free from the attacks of the slightest cause producing it.

to Metastasis

Another thing observable is, its disposition to arise in a diff^t part of the Body from that when it was originally produced; thus if the right Leg is affected, it often leaves it right to move on the left Leg. — This symptom takes place in two ways, either of Rheumatism in one part takes off the symptoms in another part, in the same manner as in Inflam. tho' not so effectually, for if Rheumatism may be in both at the same time, or sometimes if Rheumatism goes off from one part & is translated to another. — It has been supposed, that there was some Matter w^{ch} obstructed the capillary vessels, & w^{ch} was translated fr^m one part to another by Metastasis. — Let us examine this Doctrine & its consequences a little.

not by Obstruction

If there was such an Obstruction taking place in w^{ch} some call the Lymphatic Vessels, then a less quantity of blood must pass thro' them, & if the neighbouring Lymphatics were shut, & instead of having a pain & swelling in the part, we should have a pain & swelling in other parts.

But in reality there are no Lymphatic Vessels & therefore there can be no Obstruction in them; we have not discover'd as yet any vessels that can be call'd by that name, or can answer the Properties imputed by them. — But we will suppose there was such an Obstruction & that this would not account for the Metastasis. — For it is evident, if this Matter can't get in both places at the same time, it must therefore get out of the first part before it can get into the 2^d.

— Again, there are great difficulties attending the supposition of this Matter sh^d fall on one part more than another, tho' we can conceive why a greater action of the vessels sh^d take place in one part more than another w^{ch} the Habit is thus dispos'd.

Of Rheumatism in general

If there is a Metastasis of this Malignant Matter, it must enter into of Veins, thence to of Heart & afterwards by of Arteries it must be distributed thro' of whole Body; now we can't conceive how it comes to fix in any particular Part, unless we suppose a peculiar Structure in of Part. — If you conceive there is a particular Contraction in any Part, it will cut for all of Symptoms of of Dist. itself; & there need not be two Causes supposed to produce of same Effect.

produced by humors Metastases in Rheumatism, seldom arise from fresh cold apply'd to of part where of Metastasis occurs. — Persons of are subject to Rheumatism are liable on of least Cold to have it produced — Thus, ~~if~~ ^{if} of Arm to of Cold we a Person is struck has produced a Metastasis — and I believe if we were accurately to trace them we should find of Dist. do generally change their Situation by of Reflux of Cold to of particular Part; they may indeed arise from other Causes w^{ch} we are not acquainted with; but we can't conceive of they arise from any other collectg so as to form an Obstruction.

Natural Cure

how assisted
by Remedies

I have already observ'd, of a Rheumatism cures itself by an increased Action of of Arteries, first on by of Stimulus apply'd; the Arteries endeavor to push of Blood thro' of contracted Capillaries, a greater quantity of Blood in consequence of this is thrown out w^{ch} at length forces open these Capillaries. — We assist this method of Cure by regulating of Action of of Arteries. — If of Action is too great, we lessen it. — Bleedg is the best evacuation we make use of for this purpose, & is preferable to purging; for Purge not only simplifies of System in gen^l. but particularly of Vessels on of external surface of of Body, & therefore weakens of Action of those Vessels we want to act most strongly.

But Bleedg will not of itself cure of Dist., but rather protract of Cure; because we may thereby weaken of Action of of Vessels too much — 'tis necessary to keep up a degree of Inflam^y Diathesis; the care should be taken not to exceed on this Head, for if of Inflam^y Diathesis continues for some Time, it is very difficultly got the better of; particularly of want of Sleep continues sometimes after of Inflam^y Diathesis is removed — 'tis best to take away too much Blood than too little; for of Inflam^y Diathesis may destroy of Part; but on the other Hand will only prolong of Dist.

by Stimuli

If of Action of of Vessels is not sufficient, 'tis necessary to employ Stimuli to increase

Of Rheumatism in general,

Many of *Stimuli* have been employ'd for this purpose, particularly *Essential Oils* distilled from *Trees*, such as *Gum Guaiacum*, & also *Volatile Alkali*.
 Those of *best* *Inflam^y* are of *best*, such as of *Volatile Alkali*, & of *Essential Oils* of *Tetradynamia* & *Liliaceae*, w^{ch} are to be prefer'd to those *Essential Oils* whose *Action* continues for a *considerable* time. — But on *other* *Hands*, when *if* *Patt^r* is weak & there is no danger of an *Inflam^y Diathesis* arising, there *if* *most* *Inflam^y Stimuli* are to be used. — Some have made use of both kinds of *Cure* at *the* *same* *time*.
 Bleed^g in order to lessen *if* *Action* of *if* *Depend^y*, & apply^g *Stimuli* to increase their *Action*, but this is *absurd*. — After bleed^g so as to get rid of *if* *Inflam^y Diath^{is}*, if the *Dis^e* continues for 5 or 6 Days afterwards, then *Stimuli* may be apply'd with *Advantage*.

Artificial Cure
by mod^y mod^y cure
Source of no advantage
 The *Artificial Method* made use of for *if* *Cure* of this *Dis^e* is to apply *Med^y Producing Equable Circulatⁿ*. — The *Neutral Salts* have been sometimes employ'd wth *Advantage*, however they are not to be depended on; the more powerful *Med^y*, such as *Preparations of Antimony*, *Kattewake root* & *Spicaeantha* are of *if* *greatest* *Service*.
 Many have kept up a very *considerable* sweat, think^g *if* *Evacuation* of *Advantage*, but this is not so, because *Sweat^g* makes *if* *Skin* more *irritable*, & therefore renders the *Dis^e* more *liable* to *recur*. — Besides, *if* *Patt^r* wants *sleep* & a *profuse* sweat is kept up, *if* *restlessness* is increased, & *sleep* is prevented. — We are not therefore to load *if* *Patt^r* with bed cloaths, but only to make use of a sufficiency to produce *Equable Circulation*. — But sometimes 'tis necessary to do this, especially if these *Med^y* purge; then also a *small Opiate*, or some *Stimulus* may be apply'd with them; otherwise it is better ~~to~~ to employ *if* *alone*.

By Bleeter, or Antispasmodic Stimuli
 Another *Method* is, to raise an *Inflamⁿ* near *if* *part Affected* by *if* *applicatⁿ* of *Bleeters* or *Other Stimuli*; by this *Method* *Fever* & *Rheumatism* are sometimes removed. —
 It does not appear to be a matter of indifference w^{ch} kind of *Inflam^y Subst^y* we employ; those of *Antispasmodics* are better than any other we can use, such as *Volatile Alkali*, *fosible* & *Impure animal Oils*, these being rub'd on the *part* sometimes take off *Instantly* a *Slight Rheumatism*.

Of the Acute Rheumatism

Swelling & inflammation The Swellings also w^h remain after the Dis^e is removed are taken off by dissolving & making of matter condensed by means of a greater secretion of Lymph into of cellular Membrane. This is done by Stimulating of Part with of Antispasmodics last mentioned.

Dark & prod. of swelling After of Dis^e is cur'd & of symptoms carried off, it is necessary to prevent their return by destroy^g of irritability of of system by means of of Dark, w^h is employ^d with great Advantage for this purpose. — This Med^e has been exhibit^d during the Dis^e for a purpose I shall mention in treat^g of of Acute Rheumatism — but it is very proper after of Dis^e is cur'd. — The Part is to guard against cold, for of slightest cold, will reproduce it, & of in a manner much worse than the former seizure.

Of the Acute Rheumatism

Disin in strong Habits I am now to shew you of difference in Rheumatism as they arise in diff^t Habits, or as they are distinguish'd into Acute & Chronic; this depends on of diff^t Habits attack'd by of Dis^e. — As it was said w^h treat^g of Fevers, there are gradations from of Inflam^y to of low Nervous Fever; so it is here. — In those Rheumatism affect^d Persons of a strong Habit, they are attend^d with consid^l Inflam^y Diathesis especially at of first attack. — ^{Cold} Rheumatism apply'd to of Body, either by itself, or by means of other applications w^h generate cold on of surface of of Body, such as of evaporation of fluids, or of wind blow^g away of Atmosphere of of Body. There arises ^{gentl} a Pain, generally together with an inability of Motion, also a sense of cold & a contraction of of Capillaries — gradually then arises a distensive Pain attend^d with a consid^l Inflam^y Diathesis; the skin becomes all over red, only of part of of skin w^h was first affect^d continu^g pale. The Tongue becomes dry & white; all of other symptoms of the Inflam^y Diath^{is} take place, & of sometimes to such a degree as to destroy of Part by a compress^g of of brain. — If this is not of case, the Dis^e goes on, of Part affect^d swells consid^l & becomes red — As soon as of swelling arises, if Pain is in a great measure carried off. But frequently a metastasis takes place; cold is apply'd to another part, Pain arises there, it swells, & of Pain goes off.

Of the Acute Rheumatism,

Very Paroxysm
manifestDelirium fr. want
of sleep.

In 2 Days time of long Paroxysm becomes more violent, especially in the hot Fit of Paroxysm of Pat. is in great pain, w^{ch} goes off in some measure by the Morn^g, so y^t for 2 or 3 Hours of Pat. is tolerably easy, but in the even^g again, if Pain increases, & is very violent in the night — The Pain & restlessness of Pat. is deprived of sleep in the night, so y^t he begins to be affected with Delirium towards the Morn^g, but if Pain abates he has some sleep & if Delirium goes off, but every night of Delirium increases till at length he becomes furiously Delirious. — In the mean time of Pat. is weakened, & if Pulse becomes softer, if Pain goes off, & even it not for the Delirium & long Paroxysm of Pat. is in a great measure free from the Dis^e. — But if the Pat. falls asleep for 3 or 6 Hours, if Delirium goes off, & even by the Application of Opiates if Delirium is carried off. — But if sleep is not procur'd, if Delirium arises to its greatest height, if Pat. jumps out of bed & attempts to throw himself out at the window or other ways to destroy himself. — It frequently happens if w^{ch} this Delirium arises to a great height, if the Functions of the whole Body are prevented, convulsive Contractions take place, the Pain seems to go off if sooner ~~but~~ in consequence of the Delirium's long on. — w^{ch} the Dis^e arrives to such a degree of violence, if long Paroxysm continues; the Pains frequently recur; the Pat. grows weaker, Symptoms of putrid Blood appear; if Pat. sinks more & more till he is at length destroy'd.

At other times if long Paroxysm abates, & if Pat. is reliev'd, but if Dis^e continues a long time, perhaps for 5 or 6 Months before the Pains are wholly remov'd.

Cure

By Blood

Med^e mod^o & wine.

As in this Dis^e if principal danger is from the Inflam^y & Diathesis, we must take care y^t if Pat. is not destroy'd by it — we first therefore take away a quantity of Blood, & then administer Med^e prod^o & equalable Cordial^s in small Doses, & keep the Pat. in bed, yet not load^g with Opiates, but only to a degree suff^t to keep these Med^e constantly act^g on the Body — By this means if Pat. is frequently reliev'd in a few Days — But here if least exposure to Cold will produce a fresh attack, so y^t if utmost care is requir'd.

Dark to prevent reury

w^{ch} if Dis^e is thus taken off we are to apply if Sark in considerable quantities, to take off the Irritability of the Body & its disposition to be affected with Cold — And tho' if Opels may be act^g strongly, yet if Sark does no harm by its strengthening quality.

Of the Acute Rheumatism

We will now suppose y^t if Dis^e has continued for 3 or 4 Days & is risen to a considerable height — In this case, if same Method of Cure is to be pursued, but it is much more doubtful y^t if y^e Dis^e was taken at y^e begin^g — We are to bleed copiously till we get y^e better of y^e hardness of y^e Pulse; tho' its hardness will not be taken quite away while y^e Pain remains. — We are to take y^e same Care to guard against Cold, but y^e Pat^t is not to be heated with Cloaths, for Heat acts as a fresh Stimulus —

After having got rid of y^e Infl^y Death^e (during w^{ch} time if Neutral Salts may be exhibited tho' we do not much depend upon y^m) we may employ y^e Antirrhinal Powders tho' we w^od not chuse to exhibit them till y^e Inflam^y Death^e is in some measure removed, because y^m are apt to produce profuse sweat^s & to heat y^e Skin considerably — While y^e Defect^s are act^g so strongly, we w^od employ no Stimulants; we w^od not employ neither Bals^m, Gum^s nor volatile Alkali as y^t. — perhaps some of the Antispasmodics may take off y^e Pain, but y^e hazard is too great of y^e Inflam^y Death^e be^g continued & y^e long Paroxysm kept up by y^t. Means. — N^od^s produ^g Equable Circulⁿ do not stimulate unless where they produce profuse sweat^s & thereby stimulate y^e Skin, otherwise they only relax y^e Defect^s.

In Case y^e Pat^t is in danger of be^g destroy'd by y^e Delirium aris^g fr^m want of sleep, Op^rates may be administer'd. — They have been also directed to abate y^e Pain, but while y^e Infl^y Death^e is so great, they may do mischief; — but towards y^e End of y^e Dis^e wⁿ y^e Pat^t is greatly weaken'd, they may be used; tho' their chief use is wⁿ given in poorly large Doses wⁿ y^e Pat^t is in danger of be^g destroy'd by y^e Delirium. — but we ought to be very cautious in their exhibition, if the hardness of y^e Pulse & y^e Inflam^y Death^e are gone off, or else they are liable to be increas'd thereby.

If y^e Dis^e is continued so as y^t y^e Pat^t is greatly weaken'd, & y^e long Paroxysm is mov^g

Of the Chronic Rheumatism

troublesome, here if Bark is of consid^d advantage — but in this case it is supposed if hardness of Pulse & Inflam^y Diath^s are gone; for if Inflam^y Diath^s still continues, if Bark always does mischief. — The Bark must be exhibited in pretty large Doses in order to receive any benefit from it, 3 or 4 Drams be given in the Daytime.

If on disappear^y of Fever, if Rheumatism still continues in some of Members, we may then apply stimulat^y Subst^s mix'd with med^s produc^y equable Circulⁿ, such as Gum Guaiacum mix'd with Emetic Tartar. — If Pain is great & continues for some time in Part affected, then Blisters may be apply'd to Part affected. — Kust^y of Part also with volatile Liniment, & Impermeable Oil cures of Rheumatism in particular parts of Body.

Of the Chronic Rheumatism.

I come now to show you of symptoms of this Dis^e where it takes place in weak Habits, & where there is but little Inflam^y Diath^s. — When a Part has been once attack'd by an acute Rheumatism, upon least fresh exposure to cold a Chronic Rheumatism takes place.

Parts of weak Habits are much more liable to be affect'd with Cold, & to Rheumatic affections than others. — This Dis^e is very diff^t in such from w^t it is where it prevails in strong Habits.

It comes on with little Pain & inability of Motion, but with^t any great quickness of Pulse. — Sometimes it continues for a long time with^t any more violent symptoms; sometimes it swells & if Pain goes off, but on smallest exposure to Cold it renews again. — This may be call'd a Rheumatic Habit.

In this case we have 2 things to do; to cure of Dis^e, & to prevent its recur^y.

As there is seldom any degree of Inflam^y Diath^s, Bleed^y nor any other Evacuation are not necessary. — On the other hand, Stimulants join'd with Med^s produc^y equable Circulⁿ are requisite. — The Resins of Trees, & woods contain^y these Resins have been made use of to excite of Expects to act more powerfully, & thereby to get rid better of Rheumatism; but these mix'd with Antimonials, Rattle-snake Root or Spicaeantha are much better if not given alone. — And it is very seldom but w^t by these means we may get rid of Rheumatic Pains in any part of Body tho' of long continuance.

Of the Chronic Rheumatism

It is necessary to give up: Two or three times in y^e Day, but not so as to produce a sweat or to confine y^e Pat^t, for y^e increases y^e Irritability.

Cont. spasmodic for
y^e part & Motion

The Detachable Liniment together with Impermeum or Tepide Oil may be apply'd to the Part with Advantage. — Blisters also are of service w^{ch} apply'd to the part.

In some Cases we find it difficult to remove y^e Dis^e, particularly w^{ch} it affects y^e Membrane y^e covers y^e outward part of y^e Thigh — tho' I have seen y^e Sciatica cur'd by these Means after it had continued for 11 years.

Hemiparesis, p^{ar}alysis

By y^e Bath
& habitually in cold

After having removed y^e Dis^e, y^e next thing is, to get rid of y^e Disposition to this Dis^e: w^{ch} is frequently more difficult than to cure y^e Dis^e: itself. — The Bath for y^e Present cures y^e Disposition, but it must be taken for a very considerable time, & Pat^t can't always take Bath;

also w^{ch} it is given for a consid^{ble} time it loses all its Effects. — It is necessary therefore to give other strengthening Subst^s & to accustom y^e Pat^t to cold, but so as not to produce y^e Dis^e.

It requires great attention in y^e Pat^t, not to expose himself at least at least to those Circumstances wherein Cold acts more powerfully. — By this Means, his Constitution may in time be wholly alter'd, & he may become entirely free from this Disposition to Rheumatism.

I have thus gone thro' the whole of those w^{ch} have been denominated Acute Diseases. — I don't know y^e distinction of Dis^e into Acute & Chronic is just; for if we call those Acute Dis^e w^{ch} last only for a short time, then the same Dis^e may at diff^t times be denominated both Acute & Chronic.

We now come to cons^{der} y^e other Dis^e w^{ch} arise in y^e system — Some of these arise from y^e weakness of y^e system; others from spasmodic Contractions of y^e Muscles & Capels; there are others w^{ch} depend on Alterations w^{ch} take place in the Fluids; others arise from particular Temperaments — we proceed to give an acc^t of each of these Dis^e — we shall begin with those Diseases w^{ch} arise from y^e weakness of y^e system.

Of the Hysterie & Hypochondriac Disease

Of the Hysterie or Hypochondriac Dis.

This I chuse rather to call, *State of Weakness & Irritability* — Some to call it *Spasmus* as this State of Body is liable to, & w^{ch} the Cause by w^{ch} they are produced.

*Causes of Weakness
Evacuations*

A Person may be *weakened* by many Causes — Great Evacuations will have this effect, thus if we take away suddenly a great quantity of Blood, or if a Purgative is given so as to act violently so if a great quantity of Humors are taken out of *the Body* if *that* is much weakened.

— If *Evacuation* is made in a short space of time, then *Weakness* is easily got if better of; but if it is made slowly, then it is with difficulty restored — Thus a *Weakness* produced by a single Purgative is much more easily repaired than that w^{ch} is produced by repeated Purgations.

Effects of Stimuli

Another Cause is *Application of Stimuli*. — These applied in small Doses have not this Effect, but given in large Doses they considerably weaken; thus small Doses of Wine or Spices do not weaken, but w^{ch} taken in large Doses they bring on a *Weakness* that is got rid of with great difficulty.

Great Exercise

Exercise, provided it is attended with great Exertion of *the Muscles* also weakens, but this does not produce its Effect so readily as an increased Action of *the Vessels*. — Besides, if a sufficient quantity of *Nourishing Food* is given, hardly any degree of Exercise can weaken much, provided it is carried on by degrees — But if *Exercise* is discontinued, & carried on to a great height, & at the same time there is not a sufficient quantity of *Nourishing Food* used, it will weaken as much as any other Cause.

Apparatus of Mind

Any continued Exercise of *the Mind* as well as *the Body* weakens — A close Application of *the Mind* to one Subject provided the Body has no Exercise will bring on a *Weakness* w^{ch} is removed with Difficulty.

*Want of Food
— or of Digestion*

Want of Food of sufficient *Nourishment* also weakens — or if *the Organs of Assimilation* from any Cause cannot fill *the Chyle* there is a *Weakness* produced, thus, if by *Application of Sedatives* to *the Stomach*, or of *Stimuli* to *the Stomach & Intestines* these are weakened there is not a sufficient quantity of *Chyle* formed — And the *Stomach & Intestines*, are *Parts* where *Weakness* is most felt.

*Stoppage of the
Menstrua*

Another Cause is *Stoppage of the Menstrua* — In Women abt. *the Age* of 14 or 15 there arises a Disposition to *Stagnation* particularly from the *Uterus*.

Of the Hysteria & Hypochondriac Disease

Of these in which these arise first irregularly — The Hemorrhage is preceded ^{by} considerable symptoms of Inflammⁿ in the uterine part. & if Hemorrhage does not arise, then an Inflammⁿ continues & terminates in Suppuration.

After some time if Hemorrhages arise at particular static Intervals, in different women at different times, from 3 to 5 weeks, but most commonly at 4 weeks, tho' there are but few if agree exactly at the same Period. — For the Menstrua are once produced, they continue to flow till the Person is abt. 45 years of age; unless if womb is impregnated, then for the first part of Menstrua stop; sometimes if continue for one or two Periods after if impregnated. But generally they stop immediately. — After Child birth there is a considerable discharge, but during if time of giving suck they stop, but after if milk is no longer secreted, the Hemorrhage returns at if same Periods. — These continue till from if Age of 40 to 52 or 53, u.ⁿ of Melancholic Temperam^t: commences & if Habit is altered. — Then they become irregular, sometimes if Pat^t has them not in 3 or 4 Months, & sometimes she has them recur 3 or 4 times in if Month; sometimes there is a large discharge, & at other times very little.

Of Quantity. As to if Quantity of Blood discharg'd, it is different in different women, some lose 4 or 5 Ounces, others 15 or 16 Ounces, & this discharge continues for 3, 4 or 5 Days.

Causes of if Stoppage. There are many Causes w^{ch} may produce a Stoppage of this Flux — Thus, if at if time if Menstrua are flowg, any cause is apply'd w^{ch} produces a contraction of if vessels there is a stoppage takes place; thus cold apply'd to if Body, or Anxiety, Fear or Grief will have this effect. — Viscid Food also thrown into if Stomach w^{ch} produces a contraction of the vessels & a Fever has been known to have this effect. — Rising to apply'd to if system in gent^l will produce if like effect. — Very great Weakness, especially from any sudden evacuation will sometimes stop them, but it must be carried to a considerable degree before they can be stop'd this way. — With regard to if Manner in w^{ch} this evacuation is produced, there are some things relatg to this subject if we are not acquainted with, w^{ch} we know shall be shewn you.

Of the Causes of if Menstrua

begin with the sanguineous Temp^t

At the time w^{ch} if Menstrua begin to flow, the sanguineous Temperam^t begins to appear, the Body either hardens growg, or advances but slowly in growth; plethoric symptoms begin to arise, & both Sexes are now subject to Hemorrhages.

Of the Hysterie & Hypochondriac Disease

At this time there are also some peculiar Alterations w^{ch} take place at y^e Parts of Generatⁿ. There is from some cause a particular derivation of Fluids to those parts. they increase in size, & a consid^{ble} quantity of Hair grows at them. — In Men there is no part from whence this Haemorrhage co^{uld} arise, but in Women where it may take place, there arises a particular Action of y^e Vessels, there is a pain & fullness in y^e Part, the Blood is push'd forward thereby & a quantity is thrown out by y^e Vessels y^t open on the surface of y^e womb.

This is at first irregular, and as y^e Blood happens to be accumulated in y^e Part, or avoid^g to y^e Action of y^e Stimulus. — If this sh^{ould} happen to take place at y^e same time for two or three times, a Habit is produced, & y^e Haemorrhage will take place at that time again in consequence of y^e Habit. — This agrees with all y^e other alterations y^t take place by y^e force of Habit. — If any Alteratⁿ is produced in y^e Body for 2 or 3 times, it is afterwards much more easily produced, & sometimes it takes place spontaneously. Thus in evacuatⁿs of y^e Intestines, if for two Days we evacuate y^e Intestines at y^e same time, on the third Day we shall have a disposition for such an evacuation, altho' there is but a small quantity of Feces collected there. — This Haemorrhage continues at its stated Intervals till such time as some particular Cause shall counteract it, among w^{ch} may be recon^d Pregnancy, Appliatⁿ of Rethins to contract y^e Vessels, or other causes weaken^g y^e Body so y^t y^e Vessels shall not act wth sufficient strength, even tho' the Cause be for a short time apply'd as usual; but we find y^t Med^l given to reproduce y^e Menstrua are much more efficacious at y^e accustomed time than any other.

It is partly singular, y^t this Habit is not quite destroy'd during y^e Time of Pregnancy & Suckling, but if it sh^{ould} be afterwards reproduced & continue till y^e Melancholic Habit takes place w^{ch} y^e greatest part of y^e Blood is contain'd in y^e Vessels, then all y^e Haemorrhage from y^e Arteries cease. Veg become much smaller & more contracted than before. In the Melancholic Temperam^t y^e Contractility of y^e Arteries is but little lessened, then Elasticity, so y^t w^{hen} they are once open'd, they remain open, in consequence of w^{ch}. An Haemorrhage produced in such a Habit is very violent.

Continued by Habit

causes w^{ch} y^e Melancholic
Temp^t takes place

Of the Hysteria & Hypochondriac Disease

We are not acquainted with if Stimuli w^{ch} are apply'd to produce if Menstrua at first
 Significant of if Stimuli
 of if Stimuli
 The Body at this time is dispos'd to Hemorrhages, but how if Stimulus comes to be apply'd
 to if Part more than any other we do not know — w^{ch} they are once produced the Habit acquir'd
 causes them to recur at w^{ch} time there is a consid^{ble} Turgidness & fullness in if Parts — & they are
 at length stop'd by if Melancholic Temperament taking place.

Now, every Dis^{order} weakens if System, some more than others, Fevers weaken the Pat^t. most
 & to if greatest degree — Inflammatory Diathesis if left to itself weakens the System —
 I have mention'd if principal causes of weakness, & evacuations among if principal causes,
 but there is one evacuation y^t weakens more than any other, that is, of the Semen. — Evacu^{tion}:
 by Sweat & Urine weaken least because they carry off but little of if solid parts of if Blood
 they contain if watery Fluids w^{ch} are soon replaced. — If the Evacu^{tion} of Purg was not
 made from if Intestines it w^{ld} weaken less than bleedg, but as it weakens if Intestines it is got
 rid of with more difficulty y^t weakness from bleedg.

Of the symptoms of
 weakness
 Spasmodic Contract^{ion}

Irritability

2 kinds of weakness

Irritable Habits
 easily aff^d wth Dis^{order}

I am now to shew you if symptoms y^t arise from weakness — These are first felt in if
Stomach & Primæviæ, tho' weakness is first manifested by a loss of if force of if Muscles.
 — The Stomach & Intestines b^og aff^{ected}, if digestion is consid^{ly} hurt, & if Intestines are apt to
 fall into Spasmodic Contractions; whether it be produced by any previous weakness of if
 Intestines or not, this Effect generally takes place. — The whole Habit becomes very irritable.
 — All weakness is attend'd with Irritability, tho' the irritability is not always in pro-
 portion to if weakness — Sedatives destroy if irritability of if Part & sometimes of if
 whole System tho' they also weaken — Most of if other causes of weakness increase if irritability.

We may therefore divide weakness into two Claps, where the Irritability is least, & this
 may be call'd Peristaltic weakness, & where if Irritability is increas'd w^{ch} may be term'd
Hysterical weakness — These are attend'd with very diff^t symptoms.

In consequence of if Irritability, any slight Cause affects if System powerfully & produces if
 The Pat^t. is very liable to be aff^{ected} with Cold, but except where Persons have been weaken'd
 by Heat, very violent Dis^{orders} are not produced thereby; Rheumatisms & Catarrhs are more
 frequent in such Habits than Inflamm^{ation} of if Intestines — but in warm Climates Fevers &
 Dysenteries are produced thereby.

Of the Hysteria & Hypochondriac Disease

If such weakness should happen to Pat^{ts} who are naturally of an irritable Habit, then the Irritability is greatly increas'd, & if Pat^t becomes much more liable to be affected with Dis^e.

In Women who are of a Phlegmatic Habit this irritability is greatly increas'd, & in Time this Irritability is produced by a Slightest Cause. Thus if y^e Menstrua are stop'd Symptoms of Irritability take place — the Slightest Cause will then produce all y^e diff^t Dis^e w^{ch} depend on Irritability. — But in this case, y^e Body is not only very irritable, but also very mobile, so y^e if Dis^e soon goes off. — Thus a Slight Cause will produce all y^e Symptoms of y^e first stage of Fever, these are again succeeded by y^e Symptoms of y^e 2^d Fit, but if Pat^t soon falls into a sweat & y^e Symptoms of a Crisis come on. — This is y^e same with a common Fever, only y^e this runs thro' all its Stages in a few Minutes whereas y^e other takes up several Hours. — In another Case, the Head shall appear Violently Inflam'd, but these Symptoms shall soon disappear. — In a third Case, there will be all y^e Symptoms of a Pleurisy present, but they will go off in a few Minutes. — All y^e Dis^e w^{ch} thus arise & soon disappear again are call'd Hysterical Diseases.

But as men are not naturally of so irritable a Habit they are not liable to be affected this way. — These Hysterical Fits w^{ch} they frequently recur tend greatly to encrease the Pat^t & sometimes cut her off; but for y^e most part as y^e Pat^t takes Exercise they go off, till some fresh Cause such as Fear or Anxiety causes them to recur.

Where these Fits do not take place or other Dis^e do not arise in consequence of weakness, the Stomach & Intestines are greatly affected, y^e Appetite is lost, as also y^e Peristaltic Motion of y^e Intestines, y^e Pat^t is bound except where a Stimulus is apply'd then there arises a Purgings. — The Heart not having sufficient force to circulate the Blood thro' y^e External Parts it circulates on y^e internal, w^{ch} occasions a constant Anxiety, & sometimes brings on Delirium & Madness. — There is a particular Weakness w^{ch} y^e Stomach is empty, & y^e Heart instead of beat^g regularly becomes irregular in its Motion, this is caus'd by the Deprivation of any Stimulus of y^e Heart. — As the Weakness increases, the Exhal^g vessels throw out a quantity of Fluids and the Lymphatics do take up less so y^e Dropsy is produced.

Suppression of Menstrua
menstrual irregularity

Other Dis^e irritated

Of Sympt^s
turns

These Hysterical
Fits

Regulation of Mot^s of
y^e Intestines lost

Irregularity of Pulse

Edematous Swell^g

(Of the Hysteria & Hypochondriac Disease)

at last the strong Paroxysm is considerably increased, & all of symptoms of Weakness come on, the Pat. falls into a Delirium & is destroyed — this sometimes he may continue many years in this way, for frequently weak Persons as Dis. don't attack them powerfully, may live longer than those of stronger Habits, where Dis. come on wth great violence & frequently cut y^m off.

Fever is most fatal to weak Persons as they have not strength to go thro' them. But Catarrhs, Rheumatism &c wth greatly affect others are easily carried off in them.

Of strengthening the Habit

We now come to show you y^e Manner in w^{ch} we are to strengthen the Habit.

This must be done by removing y^e Causes of Weakness, & then applying y^e Means whereby y^e System is strengthened. — There is one General Rule w^{ch} universally prevails.

Rule

"That Weakness suddenly produced may be easily got y^e better of, but Weakness y^e is slowly produced, is removed with difficulty" — Weakness produced by Fever if its Cause is soon removed by nourishing Food, but where it is long continued, as is sometimes y^e case of Intermittents, is not easily got y^e better of.

The Cause to be removed.

The Cause of Weakness must be first removed before we proceed to strengthen y^e System — Thus if painful Study has been y^e cause of Weakness, tis impossible to cure y^e Pat. unless those Studies are intermitted — If Anxiety is y^e cause no good can be done unless it is removed, because y^e Remedies are constantly counteracted by y^e cause of y^e Dis.

Of removing an Obstruction of y^e Menstrua

The manner of get^g rid of other Causes except y^e Obstruction of y^e Menstrua we shall not enter into at present. — Sometimes this Obstruction takes place in Plethoric Habits

Blood in a Plethora

where y^e Vessels are so full of Blood y^t their Action is prevented, the Pulse is oppressed & hardly to be felt. — In this case, Bleed^g affords immediate relief. — It has been thought y^t last blood from y^e Saphena was more efficacious y^m any other; but it does not appear either from Reason or Experience y^t it is so — we may therefore take it from any Part we can come at we only want to empty y^e Vessels in general & therefore we shew a large Vein in y^e Arm.

If y^e Weakness by strengthening y^e System

If the Obstruction proceed from general weakness, then by strengthening y^e Habit in gen^l we reproduce y^e Menstrua, but then we apply particular Remedies. — If the Obstruction has taken place by y^e application of Cold, we apply Stimulants to cause y^e Vessels to act more strongly; perhaps it w^{ld} be better to apply Relaxants first, but this has not been mentioned.

— by Stimulants
— & Relaxants

Of the Hysterical & Hypochondriacal Dis.

In gen^l these med^s of produce an Inflam^y Diab^l are us'd with most Advantage, such as Gum, Resins & some of the Matrine Stimulants & Preparat^{ns} of Sweet & Copper.

by Purgatives & all Purgatives stimulate not only of Intestines, but also all of vessels of the Abdomen, & as they cause the vessels of the womb to act strongly, are of service. Stimul^{ts} of Subst^l apply'd to of System in general together with those apply'd to of Intestines, have more powerful Effects than either of them apply'd alone. There is also one particular Purgative ^{of the bowels} than any other, viz^t is Rhubarb. why it sh^d produce Hemorrhages in of Abdomen is

difficult to say, but y^t it does produce of Hæmorrhoids is well known, & it has of great Effect to reproduce of Menstrua w^h given for some time so as to have a stool once or twice in of Day is said: from Comparative Experiments. To gen^l purgative of these med^s sh^d be continued for a month, & commonly they reproduce of Menstrua at of same time they us'd to be produced, & therefore they sh^d be particularly given a little before of time.

Also is considerably assisted by Stimul^{ts} of Subst^l such as of Resins of Trees; Preparat^{ns} of Iron are also of use, but not so efficacious as of Resins; they are attended with this effect y^t they produce a copious flow of of Menstrua, but they cause it to stop again. Mercury has of same effect; but this ill consequence does not follow if us'd of of Gum.

All of same time these med^s w^h strengthen of System are to be us'd with Advantage; these are internal Stimuli — There have been by some externally apply'd, the vapors of aromatic Herbs have been conveyed to of womb by means of a Bath.

I am in of need place to shew you of means of treat^g these symptoms w^h arise from great Irritability, & the method of strengthening of System.

Hysterical Fits are soon gone thro' & are attended but with little danger, tho' it is best to take y^m off as soon as possible, because they weaken the Habit. — Where the Fit is produced in strong plethoric Habits, in consequence of an obstruction of of Menstrua, or by any violent Passion; it is proper to take off some Blood, & to restore of Menstrua.

The Fit is to be taken off by Antispasmodics; tho' they have not so much effect on strong Habits, yet they sometimes take off of Fit immediately — Sometimes Ether apply'd to of Skin gives immo^derate relief, or Volatile Alkali or Castoreo taken inwardly. Some have attempted to keep off of Fit with these med^s; this may be done where the Habit is strong, but where of Fit is weak, of Irritability is render'd very great thereby.

Of the Hysteria or Hypochondriac Disease

To prevent a return of Fits in very weak Habits, the Bark is very useful. Preparations of Iron & Lead have been also recommended; Iron may be us'd, but Lead is too dangerous a Med^o. to be much medled with. — By any means recommend^d we may take off a Fit so as if we may employ other means of strengthening the system whereby we may get rid of it for a time, tho' such Persons are much more liable to it than others are.

Promote to be
cleaned.

Sydenham directs a Purgative or two to be given before any other Med^o, tho' he acknowledges if Patient is the worse for it; but I don't understand why we sh^d give Med^o to Pat^t to make y^r worse — however, if y^r Stomach or Præputia are foul wth Mucus, Putrid Matter or Fæces, tis necessary to administer a vomit or a Purgative; but otherwise no method of weakening y^r system (unless it be by bleed^g when there is a Plethora) sh^d be us'd — We are to administer Antispasmodics in y^r Fit & Black afflu^d so if we may have time to strengthen y^r system in general.

Strengthen the
system

I come now to cons^r y^r manner of strengthening y^r system. — I have observ'd already if the Pat^t is suddenly weaken'd, except it be by y^r application of certain Remedies, he may be very readily strengthen'd — In this case, little more is requir'd than hearty Food, & avoid^g the causes y^t produce Weakness. — If a Pat^t is weaken'd by a Fever y^t hardly requires more than Food of good digestion to restore him to strength again.

By nourish^g Food

The same may be said of y^r case of a Pat^t weaken'd by Inflammation & y^r evacuations necessary for y^r removal of it. — We sh^d begin with animal Broths & y^r fermenting parts of Vegetables, & as y^r strength increases proceed to animal Foods, w^{ch} last may be given in greater quantities as y^r Pat^t grows stronger; but at first tis necessary to administer it frequently & in small quantities. — It may be necessary also to give y^r Bark, but not in large quantities at first for if you dis^r order y^r Stomach by large Doses you do more Mischief than good — We begin with it in solutions & increase y^r quantity till we can give it in a solid form; by w^{ch} method we can easily strengthen the Stomach.

But if the Weakness is not so much gradual, as by y^r application of Remedies, or Abus^g of y^r Menstrua, or Purges of Blood, in this case tis more difficult to cure, & Food

Of the Hysteria & Hypochondriac Disease

of easy nourishment is by no means suff^t for y^t purpose. — We strengthen y^t Constitution by Med^t, by Exercise, by exposure to Cold & to y^t Sun. — The manner of apply^g these Methods we now come to explain.

By Med^{icines} First, we make use of Med^t for this purpose. — There are certain Med^t w^{ch} increase y^t strength of y^t Muscles & Vessels, these are y^t Bark, & other Bitters of this kind. — There are some Bitters w^{ch} have y^t flavour of y^t Laurel w^{ch} are not strengthening. — Preparations of Iron are useful for this purpose also, Copper also has y^t same Virtue, but we can seldom administer that, on acct ^{of its} stimulat^g qualities. — Bark & other Med^t sh^d be given in small Doses, sometimes 2 or 3 Dracms of Bark in 24 Hours is sufficient. — We are to take care y^t these Med^t agree wth y^t Stomach otherwise they weaken, for this purpose we are to give y^t wth Spices or Spasmodic Oils; And we w^d at first give them in Infusion or Decoction rather than in Subst^{ce} because otherwise they may produce a sense of weight in y^t Stomach & do mischief. — Another thing is, they are apt to lose their effects, & are therefore to be changed & sometimes they must be entirely omitted & then repeated again. — The Bark is y^t most powerful, tho' all y^t other Bitters may be given to advantage. — Steel is apt to stimulate too much especially if given in large Doses, therefore must be given in small Quantities. — Preparations of Copper & Gold are too stimulat^g to be used.

By Exercise The 2^d Method of strengthening is by y^t use of Exercise. — In order y^t it may be of use, 'tis necessary y^t it sh^d be agreeable, all forced Exercise weakens. — If y^r person is a P^{at} to ride, 'tis much better to employ him about some particular design such as may agreeably engage his Thoughts, thus going a Hunt^g or to see a Friend is better than to ride out merely for y^t sake of y^t Exercise. — In y^t next place, in order y^t Exercise sh^d strengthen 'tis necessary y^t it sh^d not be carried on to too great a degree of fatigue, for y^t P^{at} is weaken'd thereby; But if y^t Exercise is agreeable it is not so wearisome y^t attended wth some fatigue, as disagreeable Exercise wth it. — Exercise promotes Digestion & Sleep, the want of either of w^{ch} greatly weakens. — As to the choice of particular Exercises, those y^t are made use of in y^t young Men, are better than those y^t are perform'd within Doors or in an Room y^t is confin'd; those in w^{ch} y^t whole Body is exercis'd, better than where only a Part is employ'd; for when a Part only is exercis'd, the other Parts are weaken'd.

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riding, driving in a chaise, or running are more advantageous than dancing when the legs are principally exercised. — The exercise should be adapted to the weakness of the Patient; in very weak habits driving in a chaise is of best; in stronger habits, more violent exercise is of greater use, & by very violent exercise in strong habits you may carry the strength to a great height. — The Athletes among the Ancients were amazingly strong.

Exposure to Cold to Air
The next thing is exposure to cold; exposure to cold air or water are both advantageous. In exposure to cold air care must be taken that it must not be applied to such a degree as to produce cold. — The Air should be dry, & if the body should be equally exposed to it, & this must not be done suddenly; or if the Patient must not pass from a very hot to a cold Air, & other circumstances spoken of under the Head of Catarrh must be attended to. — The colder the Air to which the Body is exposed under these restrictions, if more the Patient is strengthened. — In winter Persons are ^{stronger} ~~stronger~~ than in summer, & in cold climates, than in hot. — As to exposure to cold water, it may be observed, if the water moderately cold, is better than water extremely cold; water heated to between 40 & 50 Degrees is of best; water but a few degrees above the freezing point is too cold; for by plunging into such very cold water the Capillaries are strongly constricted, & if the Patient was to continue long in it he would be destroyed thereby. — On his coming out of such water the Patient has a fit of Fever broken on, so if the Body is not much strengthened thereby. — But in winter we may make use of a colder Bath than in summer.

Exposure to free Air
Exposure to free Air is another method of strengthening the Body. — The Air in large Towns is full of a quantity of Vapour which is not respirable with advantage considerably; whereas the Air in the country especially on high Lands & gravelly Soils is free from every other kind besides what is respirable & fixable. — Now if exposure of the Patient to such Air strengthens considerably, for he is not obliged to breathe so often, the Blood passes more readily thro' the Lungs, so if the Patient feels as if a Load was taken off his Breast, & in consequence thereof becomes considerably stronger. — However it is not proper at first to expose a very weak Patient to Air of very high grounds as great degrees of Cold are produced there by high winds, in consequence of which the Patient becomes liable to the Distemper produced by cold whereby he may be destroyed. — But if he is already strong he may be exposed to such a situation. — But otherwise, low grounds where there is a current of water is to be preferred.

Of the Hysterie & Hypochondriac Disease

It is to be further observ'd, if you expose a very weak Pat^t. to such a very pure Air he is liable to be immediately destroy'd: for if Cruel^{ty} becomes so fix'd, if Blood flows readily to surface of Body, where by if internal vessels are suddenly empty'd & if Pat^t. dies.

Change of Custom
& Climate

Again, change of Customs & Climates is of great Advantage towards strengthening of System chiefly by if Amusement w^{ch} it gives him — by carry'g of Pat^t. to a warmer & softer into a colder Climate greatly relieves him. — But if of Mind shod be occupied

Amusements

by Anxiety or Care or great application to Study, then all those means of strengthening are us'd in vain — if there is an attachm^t to any particular Object, & not to if Objects of present themselves, the Pat^t. receives no Advantage. — Hence it is if Places of Resort are

of such use to Persons in this Situation, tho' the Means otherwise us'd are of no service

— Going to Bath or to ^{drink} sea water is of more service than drink'g of Mineral waters ^{themselves}.

— The Pat^t. by amuse'd & leaving their cares behind them does them more good than any means we can advise — Sometimes Chalybeate waters may be of some service, & Bathing in of sea may strengthen a little, but if principal benefit is rec'd from if heat of Company & if Amusements there.

Colic is to be
guarded against

In if mean time if State of if Intestines must be taken care of; if if Pat^t. is bound & if Peristaltic motion does not go on, it is necessary to apply Laxatives to open if Body. Neutral Salt, as they weaken if system are not of service; Aloes, Rhubarb & Sassafras are if only ones we can use. — If the Pat^t. is bound, then arises a loss of Appetite & of Sleep, the long Paroxysm arises w^{ch} weakens the Pat^t.

Appetite to be excited
by Acid

Sometimes if Pat^t. tho' he can digest his Food, yet has no Appetite for it, in consequence of w^{ch} he is not strengthen'd; in this case tis necessary to exhibit an Acid ^{after} some before Dinner, either Citric in a glass of water is if most advisable to be given

It is necessary to repeat, if all these Methods of strengthening if system are of no avail unless the Mind is easy — It is a principal thg to be aim'd at, to keep if mind free from Care & Anxiety with: w^{ch} if Pat^t. will become weaker & weaker. — As in all Chronical Dis^e there are symptoms of weakness, & these symptoms must be regarded, we that it necessary to show you the Method of strengthening the Habit. — We come now to treat of these particular Diseases w^{ch} arise from weakness, & particularly of if Dropsy.

Of the Dropsy

Of the Dropsy

Causes

This Dis^r is caused by a consid^l collection of Serum & Coagulable Lymph in y^e Cavities of the Body — There is always a quantity of these Fluids thrown out into these Cavities but in a common state it is immediately Absorb'd again; but this Absorption does not take place & there is a quant^y of Serum in any of these Cavities, we call y^e Dis^r a Dropsy. This Fluid is commonly call'd Water, & in compliance wth common Custom we shall call it by y^e Name; but as it is evidently Coagulable it is Serum tho' mixed with a great Proportⁿ of Water.

Weakness

This Dis^r may be bro't on by diff^t Causes w^{ch} may be reduced under two Heads viz; such as cause a greater quant^y of Fluids to be thrown out by y^e Exhaling, or cause a less quant^y to be taken up by y^e Inhaling Vessels.

Of y^e Passage of y^e Serum into the Cells & how it is absorbed

In the first place, Weakness is y^e principal Cause of y^e Dropsy, & occasions both these Effects to take place. — Wherever y^e Habit is weak then y^e Capillaries are lax, & y^e Openings out of y^e into the Cellular Membrane are large — 'Tis not material whether these Holes are organized or not; whether they are a continuation of y^e Vessels themselves, or mere Filters as Paper is; tho' I rather think they are Organized Holes, for it is not to be supposed y^t so important a Function sho'd be left to mere chance since we find y^t all y^e other parts of y^e Body are thus Organized. — Nor can I see how simple Holes can have this Effect so as regularly to throw out a quant^y of Fluid; if it was left to chance we sho'd have Dropsies very frequent, & at other times no secretion at all in consequence of w^{ch} y^e Parts w^od grow together & y^e Functions of y^e Body destroyed. — Besides, I question whether y^e Experiments on w^{ch} y^e Theory of unorganized Holes are built are not entirely fallacious — In living Animals, if we inject a Fluid as viscid as y^e Serum, it will not Core through the Vessels at all; if we inject Water into a dead Artery it will Core out alike; but we are speak^g of big Arteries, & it is certain y^t viscid Fluids don't pass thro' them at all — In dead Arteries, it is possible y^t y^e inner Coat may be torn, w^{ch} prevents y^e Fluids from pass^g thro' them, & then it is no wonder y^t y^e Fluid sho'd pass thro', for y^e inner surface is so polish'd y^t no Fluid can pass but thro' organized Holes. — W^{ch} the Vessels are relax'd these Holes become larger, or if they are Organized their Apertures will be relax'd & a greater quant^y of Fluid will run thro' them. In the next place, the Absorption will not be so great — The Absorption of Lymphatics depend

Of the Dropsy

on the action of Life. Some have consid^d if absorption of a Lymphatic depends on the structure of a capillary Tube. — It is true, if we immerse a capillary Tube in a Fluid it will rise in it Tube to a considerable height: but suppos^d it was quite full, it will run empty itself by it attraction of its sides, another Power must act for it purpose. — Some have accounted for it progress of a Fluid thro' a Lymphatic by it being plac'd below the Tubes of it Muscles, whose continued action with force of Fluid forward as of Valves prevent its return. — But this acctⁿ is by no means satisfactory: for we don't see if w^o any part of it Body is at rest if a Dropsy arises in it part. — It is evident if capillaries have a power to contract y^ms: whereby y^{ff} pass forward their containing Fluids, & then relax y^ms: to take in a fresh quantity. — This is prov'd by it Spiracles being larger or smaller accord^g to it quantity of Cycle contain'd in them. — The manner in w^h Absorption is carried on is this: if end of a Lymphatic is immers'd into it cavity where it Fluid is contain'd, it first joint becomes full by virtue of it attraction of its sides, w^h by it contact of it Fluid are caus'd to contract, as there are Valves to prevent its return, this contraction causes it to pass forward; the first joint b^g thus emptied fills again, w^h brings on a fresh contraction, by w^h means it Fluid is taken out of it cavity. — Now if it Pat^h is weak, these Lymphatics are not so strong in their contraction & therefore do not throw out such a quantity of Fluids, & as they are relax'd they are larger also in their size, & therefore will carry the Fluid to a less distance; the quantity of Fluids taken up by it Lymphatics is nearly the same, but in proportion to it length of it Capil so will it Power be by w^h it acts on its containing Fluid.

Pressure

Another Cause w^h produces a greater secretion of Serum into it cellular Membrane is, a Pressure on the Veins. — If a Vein is so press'd up, it Blood can't pass thro' it, then it will press it Blood some other way; it will cause it Fluid to pass thro' it Exhalants. — Such a Compression may take place on it Veins of a particular part, as in it Womb during the time of Pregnancy, or by a swelling of it Lymphatic Glands, & thereby there will be a quantity of Serum thrown into it cellular Membrane.

Of the Dropsy

Pressure of upper
column of blood

Another cause of this Dis^e is of weight of blood itself; for if blood in pass^g from
of lower extremit^{ies} has of weight of it incumbent column upon it besides of friction
of it vessels to retard its motion — hence it is of Dropsies take place in of Legs to a
consider^{ble} degree, particularly in of Day time w^h of Pat^t is in an erect Posture.

Tumors in of Glands

Any compression on of Lymphatics also will occasion a Dropsy by prevent^g their absorb^{tion};
if a Tumor should arise in a Part where there are a consider^{ble} number of Lymphatics a Dropsy
will take place. — Tumors in of Glands y^{et} don't obstruct their passage, thus Tumors
in of linguinal Glands never occasion a Dropsy, & therefore they don't obstruct of Lymphatics.
And many Tumors y^t have been consid^{ed} as of cause of Dropsies are in reality their effect.
— Tumors in of Abdomen have been consid^{ed} as caus^g Dropsies; but Pat^ts who have been
open^d before the Dropsy has been far advanced have had none of these Tumors; tho'
it is possible, that Tumors in of Liver whereby of Vena Cava or Vena Portarum are compress^d
may sometimes cause Dropsies; tho' I believe of affections of of Liver are frequently of
effect of Dropsies as well as of cause, the Liver be^g imm^{er}d in a quantity of water; as they
are much more frequently found in Pat^ts where of Dropsy has continu^d long than w^h it is

Rupture of Lymphatic vessel.

Another cause w^h may produce a Dropsy is of Rupture of a Lymphatic.
If a Lymphatic is cut thro', a consider^{ble} quant^y of Fluid will run thro', as of Lymph comes
out of a smaller into a larger space. — But we can hardly suppose of they can be
destroy^d any other way than by a wound. — Dropsies may be also produced
by of ends of Lymphatics being hurt, this may happen in particular Cavities, as in trusses
of of Joints — the ends of of Lymphatics being hurt they are incapable of absorb^g the Fluid
thrown out into of Joints — and in case of Pus being form^d of ends of of Lymphatics may be
destroy^d, & therefore of Fluid can't be absorb^d. — But this is a case w^h happens seldom.
— the general Cause produ^g this Dis^e is Weakness.

Distinctions
Progress

There are several Cavities w^h are subject to this Dis^e, as of Cavity of the Peritoneum & of
whole of of Cellular Membrane; these are the two largest & most dangerous seats of the Dis^e.
— The first is call^d an Ascites, & of last an Anasarca. — There are a number of other
Cavities where it arises, such as the Ovaria in women; & sometimes of Lymphatics may be to

Of the Dropsy

Will't as to occasion a particular Tumor; sometimes in of cavity of of Sarcum, & sometimes in of coats of of Testis, or in of cavity of of joints, or in of cavity of the Thorax below of doublings of of Pleura & of Mediastinum, or in of Pericardium & sometimes within of Pericardium itself may become of seats of this Disease.

Of the Anasarca & of Anasarca

The two principal Dropsies we shall take notice of are of Anasarca & of Anasarca; they arise from Weakness in general; the other kinds from a Weakness in those particular Parts.

In a Dropsy of of cellular Membrane, a swelling arises in the Legs w^{ch} is greater in Evening & goes off by of Morning; on pressing of Leg with of Finger you squeeze of Serum into the neighbouring Cells, & it is sometime after of Finger is taken off bef. it returns to its former situation. — There are Angiaria swell^g w^{ch} take place & w^{ch} sometimes end in Dropsies; these appear sometimes in of Evening after Exercise, & sometimes in of Morning; they may be easily distinguish'd from Dropsical swell^gs, by their bog & taste. — These kind of swell^gs happen also after Fevers. — After sometime the swelling arises to the Thighs & then affects of Abdomen, & at length the whole of of Cellular Membrane, & at length the Sarcum becomes affected also. — In of Evening of swelling gets downwards.

When the Belly swells in consequence of of whole Abdomen be^g affected, the swelling is equal & regular, it's soft, but tense; there is felt a fluctuation in of same manner as water contained in a Bladder; on striking of Belly on one side, there is a fluctuation felt on the other. — This is to be distinguish'd from a swelling w^{ch} weak Habits are subject to.

from Air confin'd in the Intestines by spasmodic Contractions of them; w^{ch} there are no such Contractions, this air easily finds a Passage upwards or downwards with^o any particular wise. — This is distinguish'd from of Dropsy by its want of Fluctuation. This is call'd a Tympanites as of Belly is swell'd like a Drum. — But w^{ch} chiefly distinguishes this from of other is, its irregularity as to of degree of swelling. The swelling here will rise to a very consid^{ble} degree on a little Fright; & will again as suddenly subside. — Both these kinds of swelling may subsist together, & most commonly do.

distinguish'd from the Tympanites

after Pregnancy

One w^od hardly mistake a Child in of Uterus for a Dropsy, & yet I have known several who have done it, & one Poor Girl of was with Child was tort^{ur}d. — But w^{ch} a woman is with Child of swelling rises from of bottom upwards; of swelling is fuller behind than before;

Of the Dropsy

It is irregular thro' of whole time, & one part of it Abdomen feels harder than another. There is a stoppage of it in some; hysterical symptoms arise, the Os Tinea is removed upwards — but if feel of it belly is so diff't, if I think it almost impossible to mistake it. — W^h of belly comes to be considerably swelled, if Diaphragm is commonly compressed so that there is not suff't room for it Lungs to play; there arises a cough but with a small secretion of Mucus. — The belly b^g considerably distended if spirits of it Pat^t are kept up so it in this, as well as in it Pulmonary consumption of Pat^t thinks he is gett^g better tho' they most certainly destroy — Sometimes if swelling goes on so gradually if it Pat^t lives some years — At other times some Acute removes it, as I have known a fall from a Horse do — But if Dist^t admits of no natural cure; the living Paroxysms in occurs, & if Pat^t is destroy'd. — W^h the Dist^t is complicated wth others it destroys so much if sooner. — An Anasarca sooner than an Ascites; for when an Anasarca takes place, tis seldom but an Ascites comes on also. — W^h it affects particular Cavities, particular symptoms are bro't on in consequence thereof.

Incysted Dropsies

I now come to consider of Dropsies w^h take place in particular Cavities. Incysted Dropsies in it Cavities of it Abdomen are far from b^g uncommon; they are diff't from Dropsies of it Abdomen in that these are not universal, but swellings of a particular part, as in Dropsies of it Ovaria. — These swellings may be distinguish'd from those occasion'd by Flatulencies by their b^g soft — They do not destroy so suddenly as Dropsies of it Peritoneum, a Pat^t may live some years under this Dist^t, & it gives way more readily to treat^t than others, tho' w^h of water is evacuated it soon fills again.

Dropsy of the Thorax

Dropsies affect it Thorax frequently they take place w^h it Abdomen is affected, but some times w^h it Abdomen is free fr^{om} it Dist^t; they may arise from an Inflamⁿ of it Lungs Pleura or viscus membrane — I remember one Instance of this kind, where we open'd the Thorax with a Trocar to take out of Pus in an Empyema, we found nothing but a quantity of Serum. — In this case, there is a great Load on it Breast; if the Dropsy affects only one side of the Thorax, if Pat^t feels a difficulty of lying on that side — W^h is somewhat remarkable is, if it Lungs are more liable to swell in this Dist^t than any other w^h from weakness

Of the Dropsy

As the Lungs are prevented from act^g, their functions are destroy'd, there are few red Globules form'd, there is a great paleness of y^e Face, & a particular whitene^s in y^e white of y^e Eyes, an act of y^e small quantity of red Globules pass thro' them.

Dropsies of y^e Head are freq^t in Ch^l, & where the Bones are not clos'd, y^e Head swells, but in Adults this swelling does not take place. If it arises suddenly, it occasions an Apoplexy or Palsy. If it arises slowly, it brings on a Stupeor; the Eyes don't move so readily, & w^h y^e Pat^t stoops he loses his sight. But it is to be observ'd, y^t on opening y^e Head, we find a Fluid w^h takes place after Death & w^h does not subsist dur^g y^e Pat^t's life time.

The Dropsy of y^e Scrotum is easily distinguish'd; if it is in y^e Scrotum the skin is pellucid; if it is in y^e Testis, it is commonly partial, & y^e skin is moveable over it.

Dropsies of y^e Joints take place w^h little Inflammⁿ. But a consid^l swelling arises attend'd with pain in y^e Ligaments; on press^g the Part you will find a fluctuation on the opposite side; the Motion of y^e Joint is lost; & if y^e swelling continues for a consid^l time, y^e Bones will become Carious, there arises at length a Stechic Fever w^h cuts off y^e Pat^t.

There may be other kinds of Dropsies, such as a Dropsy of y^e Bags over y^e Joints, & in some Incur'd Bags in y^e Cellular Membrane.

In the Cure of Dropsies two things are to be attend'd to; y^e evacuation of y^e Fluid lodg'd in y^e Cavity, & prevent^g a fresh Extravasation. When the Dis^e arrives to a consid^l height it becomes dangerous & generally destroys. — Sometimes we can evacuate y^e water, but it generally fills again, & in consequence of its continuance there the Pat^t is often destroy'd. — Inipient Dropsies aris^e fr^m Weakness are sometimes got off better w^h w^h they take place in consequence of some long continu'd cause; But w^h they arise from sudden Weakness they are easily cur'd. Thus Dropsies in Women w^h Aris^e from any other Tumor w^h can be remov'd, are easily cur'd. But if y^e Dropsy has continu'd long, it will still prevail even after the Cause is taken away; But it is not so difficult of cure as that w^h arises from Weakness.

Where Dropsies take place after a Dis^e of consid^l continuance, by strengthen^g y^e Habit in gen^l. we procure a Discharge of y^e Fluid & also prevent its return; here evacuations w^h do mischief by weaken^g y^e Pat^t: But if y^e Dis^e is risen to a consid^l height & strengthen^g y^e Habit are not suff^t.

1 sometimes by only
2 strengthen^g of y^e Part

Of the Dropsy

There are a variety of Methods us'd for evacuat^g of Extravasated Fluid — If we procure any consid^l evacuation for any of the Glands we procure a consid^l Absorption in g^e System in general. — Evacuations may be produced from all Glands, but those from g^e Kidneys & Skin are of most Advantageous if they can be produced, because they weaken least a. they take off g^e watery parts of g^e blood & but little of g^e solid parts of g^e serum or conquialled lymph. — If this could always be done, the Cure of Dropsies wou'd not be so difficult. — But evacuat^g by water is made in small quantities & greatly saturated with neutral salts; & it is very seldom g^e evacuation by g^e skin can be made at all. — The most powerful Med^{ts} to produce this ^{lost} evacuat^g are Stimulants mixt with Med^{ts} prod^g g^e equal Cessat^g & Antispasmod^{ics} such as Specaucamba or Smell^e Tartar mixt with Opium or Camphire. Sometimes we can by their means produce a consid^l evacuat^g; but this is not of most certain Method because many times we can't carry off g^e water perfectly, & sometimes not at all.

Diuretics have also been employ'd; squills are of most powerfull; Fixed Alkalies, Essential Oils, some of g^e Mineral salts as Sal Discretiss & some of g^e Umbelliferous Plants have been employ'd. — The Effects of these are very uncertain; & some of them will not act: others will take effect; we therefore try them round, especially where g^e Part^l is very weak & will not bear purg^g. — The Leaves, Cones & Berries of some of g^e Coniferous Plants such as Juniper Berries are sometimes of consid^l Service.

Evacu^g by Purg^g The next Evacu^gation we use is by g^e Intestines, this we can produce wth great certainty; but it weakens g^e Part^l greatly, & therefore manytimes only serves to hasten his Death. — These Purgatives we use as act powerfully; for if we only Stimulate g^e Intestines & not g^e System in general we cause but little Absorption to take place, & they leave the Part^l weaker than those w^{ch} Stimulate g^e System. — We don't use g^e Neutral salts therefore. — But Salap w^{ch} is of mildest, Scammony, Gamboge & Usterium. — These subst^{ts} w^{ch} contain a quantity of Resin shou'd be mixt thoroughly wth Sugar to cause g^e Part^l to diffuse their Effects thro' g^e Intestines; & also a quantity of Essential Oils shou'd be given to prevent their griping. — These Med^{ts} are given chiefly where there is a weakness of a particular Part w^{ch} g^e System in general is strong; but where g^e Habit is weak they Asks of g^e Part^l of the Part.

Of the Dropsy

Comed? & salivation have been sometimes employ'd, but they are not preferable to purg^g & are us'd with much greater pain to y^e Patient. — Salivat? is but a small evacuatⁿ in comparison to w^t may be procur'd by other Methods.

Purging to be continued
If we can produce an evacuatⁿ by Stool or Urine tis to be kept up till y^e whole of y^e water is carry'd off; but we are oblig'd to omit y^e use of Purgatives in w^{ch} Stools for a day or two. — It sometimes happens y^t comed? Intolerable takes place in y^e head & y^e Water collects in consid^l quantities; we w^d employ Opiates had it not been y^t y^e Pat^t is subject to be restless & Opiates increase y^e retention of y^e water; so y^t gentle Laxatives sh^d be given on the intermediate days. — As soon as y^e evacuatⁿ is made we are to strengthen the Habit. — Dropsies of y^e Breast are gen^lly fatal, sometimes we can evacuate y^e Water by open^g into y^e Breast; & sometimes tis absorb'd by y^e Methods already describ'd.

By Stimul^g of y^e System
Another Method of evacuatⁿ is by stimulat^g of y^e system in gen^l or some particular Part. But y^e applicatⁿ of Stimuli to y^e system in gen^l is not so proper because they leave y^e Pat^t much weaker & y^e Absorption of y^e water takes place in consequence of it is more than counteracted by y^e laxity y^t follows. — I know one y^t was cur'd by drink^g a large quantity of Pinch after every other Method had been try'd in vain.

By Friction
Some External Methods have been us'd, such as rub^g of y^e Abdomen & to prevent y^e skin from be^g hurt, some Hyperic^o Oil has been apply'd; any dose in y^e Dropsy is extremely liable to Gangrene & Necrosis. Rub^g of Feet with Alumel or a Wash with Hyperic^o Oil has been of service, by caus^g y^e Water to be reabsorb'd; but this method is gen^lly made use of to assist other evacuations.

By Tapp^g
Another method of evacuation is by mak^g an Opening into y^e Abdomen; this Operation I shall not describe as it is always done in your Anatomical Lectures. — w^{ch} y^e Operatⁿ is perform'd, tis necessary to keep up a pressure on the Parts for a consid^l time & to apply all y^e means of strengthening. — There are very few Instances of Persons be^g cur'd in this manner; y^e Dis^e easily recurs; & therefore tis rather a palliative than a Cure — There have been some Inst^s in w^{ch} the Dis^e thus treat'd has not return'd for a consid^l Time; but they are few. — however we can relieve y^e Pat^t for some time, & surely if we continue the pressure, & we can continue y^e use of strengthening Med^s.

Of Convulsive Diseases.

In utero moth? if water is evacuated, we are to strengthen y^e system to prevent the water from being reproduced.
Purgatives in Dropsies of the Head In Dropsies of y^e Head, Purgatives are of consid^r. (Reasons) they frequently procure a reabsorption of y^e water as y^e system in gen^l is not much weakened. In all y^e Stracophthalmia in y^e Head Purgatives are of service. — If y^e cavity can be come at, as in Dropsies of y^e Membrane coverg y^e Tent, if y^e water can't be evacuated by internal blood. we may cut into it, & then inflame it so as to produce granulation of Flesh. — Dropsies of y^e Joint are not to be cut into, for in y^e case y^e sin y^e joint may y^e Joint, a suppuratⁿ w^l take place & y^e Bones w^l become Carious. — In this case we are to use Frictions with Stimulat^r Subst^s such as Caustic Potash, Alkali, &c. Essential Oils. The Absorption is very gradual here — we are then to move y^e joint gradually & to take care if no fresh hurt sh^d take place. — Blisters have been apply'd w^l Advantage w^l there is gr^t pain & distortion of y^e Ligaments; & if y^e Pulse is hard we are to take off some blood but if there is no Inflammⁿ opiat^s are to be apply'd. — Purgatives are of little service here. — We are then to apply all y^e Methods described of strengthening the system. — The Pat^t must drink little for an obvious reason; the Throat may be taken off by y^e use of Lemmons & Oranges, or Nitre & Sugar.

Of Convulsive Diseases

Definitions cons? These Disorders are class'd under several Names such as y^e Epilepsy, Cataplexy, Chorea, Santhi Vite, Convulsive Fits &c. — Convulsion or Spasm does not seem to be properly defin'd by Physicall Writers — Some have defin'd it to be a "proternatural Contraction of any part of y^e Body." — But this Definition will include in it y^e greatest part of other Dis^s as they are all with a proternatural Contraction of some part of y^e Body. — Others have defin'd the Contraction as simply Affect^g of Muscles — but by this means we sh^d exclude most of those Dis^s y^e are Convulsive, as the Vessels as well as muscles are affected by them. — If there is any Difference betwⁿ these & other Disorders it consists in this, that there are some Habits w^l are more irritable than others, & that Dis^s arise in y^e from slight Causes, & are more readily carried off again — It is True there is a gradation in y^e Irritability of Habits; in some, Dis^s are more fix'd & not so easily remov'd, & other Habits are more mobile. The Spasmodic Contractions we are now to speak of are chiefly those of y^e Muscles, the Vessels are sometimes affected, but not to a great degree — We shall begin with the Epilepsy

Of Convulsive Diseases.

Of the Epilepsy

Causes

known & unknown

in diff. causes

Epilepsies sometimes arise from Causes we are well acquainted with, & at other times from Causes we are totally ignorant of. — They sometimes arise from Passions of *the Mind*, for these are known frequently to produce *it*. — They sometimes arise in very credible Habits from Stimuli; they are not on by worms in *the Intestinal Tube*, or from little Inflammations w^{ch} arise in diff^t parts of *the Body*. — But Epilepsies sometimes arise where we can trace no Passion of *the Mind* & where *the Body* is not ^{irritable}; here the Cause has been sought out by Anatomy; sometimes the Membranes of *the Brain* have been found harder than ordinary, or *the Vessels* somewhat larger than usual; but these can by no means be deemed as sufficient Causes for these Effects. — Particular Professors have been fond of rendering their own Branch of Science as important as possible; thus Anatomists have been fond of ascribing Causes of *it* are by no means sufficient to account for *the Dis^e*, & many times the Effect has been assigned as the Cause; thus in *the Venae cavae* there has been found Matter contained in many of the Cavities, w^{ch} has been assigned as *the Cause* of various Dis^es, but every Venae cavae will be attended with such an Appearance. — Thus, if after an Epilepsy there is a quantity of Water found in the Brain, I sh^d rather consider it as the Effect than *the Cause* of *the Disease*.

The Hardness of *the Membranes* will not an^t for this Disorder, for if it cuts at all *the Cause* it must act constantly & will induce *the Dis^e* to recur very frequently.

This Dis^e w^{ch} it is once produced by *the more violent Causes*, can be made to recur by more trifling.

Disturbances & Progress

This Dis^e begins with a sense of coldness & *the* from *the Feet* to *the Head*, sometimes with sickness of *the Stomach* & sometimes with a Headach; the Pat^t then falls down totally void of all sensation; the Sensibility is also wholly lost so *that* *the Application* of Stimuli has no Effect; the internal Senses are also lost so *that* *the Pat^t* is not sensible of any thing; the Muscles are convulsed; the white of *the Eyes* appear, & these convulsions continue for a longer or a shorter time; the Pat^t breaths deeply; the Pulse continues with^t Alteration; but *the End* of *the Fit* there is a great quantity of Saliva secreted, & other secretions also take place as if *the Urine* & *the*; the Pat^t after having continued with^t Motion for sometime, at length recovers his senses with^t any remembrance of w^{ch} he had part, but with^t any Alteration in *the Body*, but only some w^{ch} break. — But w^{ch} *the Dis^e* continues, he is affected in *the Intervals* with stupor, some quackings of *the Limbs*, and a greater degree of irritability.

Of Convulsive Diseases

These Fits w^{ch} they have once taken place generally recur — Sometimes they recur *Arising* to y^e. of Salt has not a fit in a twelvemonth — But sometimes they are *hereditary* w^{ch} they are frequent. — Sometimes they don't much affect y^e. of Salt w^{ch} they recur at great intervals; but if they recur soon they do much mischief, they leave a great *Depression* attended with a loss of Memory & other Functions of y^e. Mind; the Body is *enfeebled*; symptoms of Irritability, *more* or less of Fits instead of being regular, recur sooner & if symptoms of weakness increase y^e. of Salt is destroyed. — This Dis^r sometimes recurs in Salts, if we are very strong, but chiefly in weak & irritable Habits.

Cure
w^{ch} Salt is affected with an Epilepsy nothing can be done but y^e. of Salt & Sensibility & Irritability be kept low, so y^e. of Salt we can apply can have any effect on y^e. Body at all — And this is y^e. Manner of judg^g between Epilepsies y^e. are counterfeited or not; for if they are counterfeited they must be sensible to some Stimuli. — We know y^e. of keep^g up y^e. Attention of y^e. Patient will prevent the recur^g of y^e. Dis^r, thus Boerhaave cured several Child^{ren} by put^g of red hot Pokers near y^e. & threatening to burn y^e. foot y^e. fell into y^e. Fit — On this but many have been suspected of counterfeiting y^e. Dis^r, because they were cured in this manner. — If y^e. of this of Life can be come at, if y^e. Person counterfeits a Fit this will be stimulated, & it is very difficult for Persons to counterfeit such a Convulsion as that the Eyes should be so much drawn up^{ward}, as y^e. this Experi^{ment} can't be made. — In the Fit there is nothing to be done but to put y^e. of Salt in Bed & to prevent him from heat^g himself particularly by sitting up.

Prevention
w^{ch} y^e. of Fit is coming on, keep^g up y^e. Attention may prevent it. — The most powerful Antispasmodics given as y^e. Fit is coming on are frequently of use to keep it off. As to y^e. use of Antispasmodics in y^e. Intervals, we must distinguish between y^e. two Habits; those y^e. are strong are frequently cured by y^e. w^{ch} they are made to act constantly on y^e. Body; but weak Habits are made much worse by y^e. as every Day renders the Body weaker & more irritable. — The Antispasmodics are, Camphire, Musk, Imperianatic Oil, & some others of y^e. more powerful ones. — In strong Habits therefore after having taken off a quantity of Blood to prevent their ill effects, they may be given to Advantage. In weak Habits strengthen^g y^e. Mind; joined with y^e. several Methods of strengthen^g y^e. Body frequently Cure; the Bark & other bitter Med^{icines}. Preparations of Iron, & Cold Bath are of service.

Of Convulsive Diseases

In this case, if Antispasmodics are given tis only to ward off if Fit at y^e time of its
suspicion if we know its return, or if any warning is given of its approach.

All the other destroyers of y^e Irritability have been given such as some Vegetable Estring^t
w.^{ch} have been deem'd Specifics, the viscus Quercus, But these are far from curing always

Cause to be removed

If there is any evident Cause, y^e Cause shoud be removed; if Worms produce it they shoud
be destroy'd; if any stimulus, it shoud be removed. — It is at all times very difficult

of Cure; w.^{ch} is arising in strong Habits with^{ch} w.^{ch} Cause tis seldom cur'd; But where
there arises great weakness & irritability tis frequently cur'd by strengthening Medicines.

Epilepsies if take place in Ch.^d are frequently cur'd by y^e time of Puberty.

Change climate

This points out to another method w.^{ch} is to send y^e Patient to another Climate, & cause y^e him
to change y^e whole of his Customs — If they continue after Puberty they generally cleave
by y^e Pat^t's thro' y^e whole of Life. — This Dis^e frequently arises from Parents in
w.^{ch} case it is invincible. — Periodical Epilepsies are very difficult of Cure; & w.^{ch}

These periodical Epilepsies recur frequently they are generally soon fatal.

Strong Habits are but little benefited by Strengthening Med.^s w.^{ch} destroy Irritability, if Dis^e is
such generally continues thro' y^e whole of y^e Pat^t's life

Of the Catalepsy

to be treated as before

The Catalepsy differs from y^e Epilepsy only in the mode of y^e Convulsion; for in this Dis^e
the Pat^t continues in y^e Posture wherein he first fell into y^e Fit — It is a Dis^e of seldom
takes place, & is to be treated exactly in y^e same manner with y^e Epilepsy

Of Convulsion Fits

by Antispasmodics
& Strengthening Meds

In this Disorder the senses are not taken away as in y^e Epilepsy, but they differ from it
in not being so violent — It may be taken off by Med.^s given in y^e Fit, & is much more
easily cur'd than the Epilepsy, by the use of Strengthening Med.^s & those w.^{ch} destroy
Irritability, & by Antispasmodics during y^e time of y^e Muscular Contraction

Of the Chorea sive Stet^t Viti

This Dis^e differs from y^e former in its being Periodical — Sometimes one set of Muscles are affected
& sometimes another, but chiefly y^e Muscles of y^e Head — It is rather a loss of Contraction than
a convulsive Motion of y^e Muscles; thus the Head falls, & in order to raise it up y^e Pat^t is oblig'd
to bring it all round; the same takes place in walking.

Of the Asthma

by strength of Habit This Dis^r takes place in very weak & irritable Habits; and as it depends on Weakness, it is to be cured by the common means of strengthening of Habit w^{ch} have been already shown.

Pruritus, Convulsions There are several other kinds of Convulsions w^{ch} have particular Names given them. The Hiccus Sardoniacus in w^{ch} of Pat^t falls into violent Laughter. — Antispasmodics are to be given in order to get rid of the Contraction, & then Med^s to strengthen & to get rid of Irritability.

Humor, Scurvy, Rheum The Tricusp^{is} & Conduite Asthma are also of this kind & are to be treated with Antispasmodics during of Fit, such as Camphire, Volatile Alkali's Impureumatick Oil; & Med^s destroy of Irritability out of of Fit.

Convulsions of Inflamⁿ There are other Convulsive Contractions diff^r from these w^{ch} arise in Inflamⁿ; they are caused by violence of of Pain & w^{ch} the Pat^t has been greatly exhausted thereby — these Convulsions are liable to continue. — In general, of Inflamⁿ is to be taken off by evacuation, or if it is kept up by any particular Stimulus, it must be removed; then Med^s destroy of Irritability such as of Bark, & sometimes Opium, are given with Advantage — however, as many of Pat^{ts} who have taken Opium have died, as have survived. — Preparations of Lead have been tried, & have taken off of Convulsions, but of Pat^t has been frequently destroyed. They are much easier prevented than removed — In Ulcers of Bark has been given to prevent these Convulsions; they seldom happen till the Pat^t's strength is exhausted.

Of the Asthma

Croup As every Acute difficulty of breathing has been called by the name of Strippneumony; so every chronic disease of of Nature has gone by the name of Asthma; notwithstanding this disorder may arise from very diff^r causes, such as a Palsy of of Muscles of Respiration &c. — The Dis^r I am now to take notice of under of Name of Asthma, arises from of Blood circulating in too gr^t a quantity on of internal Parts of of Body. — W^{ch} on of Applicatⁿ of Cold of Blood is thrown gradually on the internal Parts, it does not produce an immediate or violent Dis^r, but there arises a difficulty of Breathing from of quantity of Blood circulating thro^{gh} of Lungs. — This Dis^r generally arises from Catarrh, but sometimes with^{out}, particularly in cold climates & in Persons of. begin to be weakened with Age. — W^{ch} it arises from a Catarrh it takes place in of following manner. — W^{ch} a Catarrh takes place, if of Pat^t does not guard against cold, it may continue for 4 or 5 months; & tho^{ugh} it goes off in of warm weather, yet in of 2^d. winter it comes on again with a Cough & continues to increase.

— from Catarrh
Distinctions &
Symptoms

Of the Asthma

till of Month of January w^{ch} weather is coldest it comes to its height, it goes off again as if Summer comes on; this is done for 4 or 5 years till at length it continues thro' Summer as well as of Winter. — There is no great quant^y of Mucus at first secreted, w^{ch} is colourless, but after if Dis^e continues for some years, this Secretⁿ becomes increased till at length it arrives to such a degree as to destroy if Pul^l. the ven^g Prox^yem^g also greatly increas^d. but this does not happen till after a considerable time, in some Pat^{ts} not till after 20 or 30 years.

Sometimes if Cough is very hard & not attend^d with a secretion of mucus, at other times there is a quantity of Mucus brot up & then the Cough is not so difficult.

*sometimes resembles
Pneumony* In Pat^{ts} of plethoric Habits w^{ch} their b^g exposed to cold, there are a variety of Symptoms w^{ch} mostly resemble a Peripneumony, but yet diff^t from it; there is a great difficulty of breath^g attend^d with a load on the Breast; if Blood is also accumulated in if Brain & Rins on a stupor — this is owing to if vessels of if Lungs b^g so fill'd wth Blood if an effluvia cannot freely be discharg'd; & if Air not b^g sufficiently taken in, if Blood can't pass readily from if right Ventricle to if Left; if this continues for a considerable time if Pulse becomes quick, & if Pul^l is suffocated or destroy'd by a pressure on the Brain. — This Appearance of if Dis^e is easily distinguish'd from a Peripneumony, for if Pulse is not so quick, & there is a load on if whole Breast & not on a part only: besides, if Dis^e does not go on and increase as if Peripneum^y, it never terminates in Suppuratⁿ or Gangrene; if it destroys, it is in if manner just describ'd. — The Asthma after it is continu'd for some time goes off wth great difficulty, tho' before it becomes habitual it may be cur'd.

Cure This Dis^e is cur'd not only by if Med^s direct^d for a Catarrh, but also by particularly guard^g against cold, w^{ch} wth precaution if Pul^l will be hardly ever freed from if Dis^e.

Med^s prod^y by cure After if Catarrh is remov'd we may by strengthening the Habit prevent if Dis^e from relaps^g by if next winter. — If the Asthma is produced, then by Med^s most equal^l extract^d: we take off if Load from if Lungs by caus^g if Blood to circulate on if skin, & sometimes thereby get rid entirely of if Dis^e — if this shod be the case, then by us^g strengthening Med^s we avoid its recurring again.

Of the Asthma

Particular Symptoms are relieved by particular Means. — If the Cough is very troublesome & little is thrown up, then expectorating Meds are of use, as of Squills & of Gums of Trees — But if it's Part. expectorates freely they are not of use, but rather tend to fix it Dis — if the Secretion should be so plentiful as to threaten destruction of Part. — then by application of Opium along wth Meds. produce a valuable Circumstance he may be relieved; But otherwise Opium is not to be applied as they increase the difficulty of Breathing; as least off should never be used unless joined with Meds. prod^y topical. Circulⁿ. — Stimulants may be some times used with Meds. prod^y eq^{al}. Circulⁿ; but Stimulants are never to be applied where there is any Inflammⁿ. — By this Method, we may take off the Cough & difficulty of Breathing; & then Bark & other strengthening Meds. are to be employed to prevent it's return.

Bark

A large Section of Trachea may prove fatal to Part. if Bark has been recommended with a view to moderate it's secretⁿ; But in all difficulty of Breathing Bark rather increases them, because it destroys the variability of it's Muscles of it's Breast, & there need be a constant attention paid to their Motion. — But where there is great weakness it may be in some measure used; however we can seldom recover a Part. in those circumstances especially if it's Dis^e is bro^ug^t on by intemperance or any other Method by w^{ch} it's System is weakened.

Pneumonia

Both this Dis^e & it's Catarrh don't violent have been called by name of Peripneumonia Notha. Here, tho' there is no Inflammⁿ in not aims to take off some Blood as it lessens its quantity & it's remainder passes with more ease thro' it's Lungs; & many times this cures the Dis^e —

Blood

Meds. prod^y eq^{al}. Circulⁿ

But at the same time it may not be amiss to use Meds. prod^y eq^{al}. Circulⁿ; these are given sometimes so as to vomit, But I don't know whether there may not be some danger attend^g it — By these Meds. if Breathing is relieved; & by expectorating Meds. we may relieve the Cough also.

Blisters

The Application of Blisters to it's Breast or any other part of it's Body, by Stimulating frequently relieve the Breathing. — It frequently happens, it's afterw^{ds} a great evacuation takes place from it's Lungs w^{ch} destroys it's Part. —

Of Asthma Notha There are a great many kinds of Difficulty of Respiration besides the Asthma — One is it's w^{ch} arises from it's Paralytic Affections of it's Muscles of it's Breast, such may take place by breath^g unrespirable Air, or lack^g inwardly it's Calves of Lead. — This is very different from w^{ch} was above,

Of the Scrophula.

Bleed & Emolus
Stimulants Describ'd, for y^e Pat^t here breaths freely in Cold Air, but is suffocate^d wth he breaths in warm Air. — If y^e Blood comes to be accumulated in y^e Lungs by means of unrespirable Air, his duty is to take off a quantity of Blood, & then to employ Stimulants, & M.D. mod^o ign^o Lic^o. —

we also apply y^e same means if we doubt to be us'd to apoplectic Affections: we also use Stimulants & volatile Linim^{ts} externally

Convulsive Asthma
Antispasmodic
of y^e Lungs Periodical difficulties of Breath^g sometimes take place in consequence of convulsive Contractions of y^e Muscles of the Thorax — these are attend^d wth but little exertion, & come on wth any manifest Cause. — This is to be cur'd by y^e Appl^{ca} of Musk, Camphire & other Antispasmodics; & then we are to strengthen y^e Pat^t between y^e intervals by y^e Administratⁿ of y^e Bark.

Suppy of y^e Blood Sometimes there is a difficulty of breath^g arising from a quantity of Water in the Thorax. This is commonly fatal — As the Lungs are compress^d there is but little red Blood form^d; the Pat^t soon comes to be exhausted & in consequence thereof destroy^d — It is probable y^e great use of y^e Lungs is, to promote y^e Fermentation w^{ch} turns y^e Chyle into Blood.

Sometimes the Operation of y^e Paracentesis has reliev'd, but it has frequently fail'd Dropsical affect^s of y^e Abdomen by compress^g of Diaphragm occasion a difficulty of breathing.

A Tumor in y^e Lungs or y^e Adjacent parts, whereby their play is prevent^d occasions a difficulty of breath^g. — All these are call'd Asthmata by some; but we w^{ld} comprise y^e Term to y^e Dist^o w^{ch} is occasion^d by y^e Blood circulatⁿ in y^e internal parts.

Of the Scrophula.

This Inflamm^o w^{ch} is liable to take place first in y^e Mucous Glands, then in y^e Lymphatics, next in y^e Cellular Membrane & last of all in the Bones we call by y^e name of Scrophulae.

— this is one of those Dist^o it is most perfectly Hereditary — We shall in y^e first place

Of Hereditary Dist^o
how convey^d therefore consider this Dist^o as hereditary. — There are several Dist^o w^{ch} y^e Parents are

afflict^d w^{ch} are liable to take place in their Children, such as Catarrh, Consumption,

Spileury, Stradups — Now it has been a great Question how it is y^e these Dist^o are convey^d from Parents to their Children — some suppose, y^e there are particular or Fluids w^{ch} pass from

Theories consid^d y^e Parents to y^e Child^{en} & produce y^e Dist^o in y^em — But it is very difficult to conceive how this can be y^e case — how can it be conceiv^d for example, that there sh^{ld} be a quantity of Matter in y^e Semen of y^e Father as w^{ch} any way act for 2 or 6 years afterwards to a produce y^e Dist^o

Of the Scrophula

Again, it is difficult to conceive how this matter sho'd lie dormant for so many years with-
out making its appearance till y^e Part comes to a particular part of life? And wh^o is still more
remarkable y^e y^e Dis^e sometimes does not appear in y^e Child but in y^e grand child of y^e
Person affected therewith; so y^t it shall remain in y^e intermediate Person thro' the whole
of his life with^{out} making any Appearance; & afterwards manifest itself in y^e Son.

I depend on y^e
Temperament which is
transmitted to y^e Child

It is much more likely y^t this Dis^e owes its origin to some particular Conformation of y^e Body
Child^{ren} are liable to be similar in their Constitution to y^e Parents. — This is still more remarkable
in Brutes, so y^t y^e young will frequently partake of y^e different Colours of their Parents.
The Tempers of y^e Parents are communicated to y^e Child, & they are frequently like y^e in
their Features; thus two Parents of sanguineous Temperam^t will have Child^{ren} of y^e same
Temperam^t. — Now where Dis^e arises from Temperam^t may be easily propagated from
Father to Child; & y^e greatest number of Dis^e may be thus communicated, thus in corruptible
Persons of sanguineous Temperam^t prevails, and abt y^e Age of 18 w^h this Constitution is
more particularly prevalent, this Dis^e is most apt to take place — so y^e Gout & Stone
are more peculiar to y^e Melancholic Temperam^t & generally take place w^h that Temperam^t
does more fully appear. — so y^e Scrophula arises in Subjects y^e are very weak & irritable
& it particularly takes place at y^e time w^h y^e Body is most weak & irritable. — We don't
find these Dis^e so much affect y^e diff^t Temperam^{ts} as persons of y^e same Habit.
The Method of curing these Dis^e supports this Theory, i.e. cold marry^{ng} with Persons of diff^t
Temperam^t. — A Person affected w^h this Dis^e marry^{ng} a woman of a sanguineous Temperam^t
will prevent the Scrophula from taking place in y^e Child^{ren}; but marry^{ng} a Person of the same
Temperam^t will subail y^e Dis^e. — Tho' there is no particular matter conveyed by y^e Parents,
yet it is probable there is some particular Matter form'd by y^e Dis^e. — It commonly
takes place in Ch^{il}d^{ren}, & y^t sometimes where y^e Parents have not had y^e Dis^e; it comes on in
Childhood, & then goes off w^h y^e Person comes to y^e vigor of life, & comes on again with y^e
Weakness of old Age. — We are next to enter on the symptoms of this Dis^e.

Disposition &
progress
of y^e Scrophula

The first symptoms appear in y^e mucous Glands of y^e Eyes, Lungs or Intestines; there are but
little noticed; the Inflamm^{ation} of y^e Eyes, or small Gripings with^{out} any manifest Cause, are usual

Of the Scrophule

And of Cough, with a secretion of Mucus it attends it is commonly consid^d as a Catarrh.
 The next progress of *Dis^e* is to inflame of Lymphatic Glands lead^d from these various
Dis^e of Lymphatic Glands ones; the Lymphatic Glands of *Neck*, & sometimes of *Mesentery* are affected; but the
 inflammation does not go on very fast; there arises a redness, swelling & some degree of Pain,
 but not great. — Sometimes of Inflammⁿ goes on more violently, these Lymphatic Glands
 suppurate, there is generally a quantity of Pus soon form^d but if Suppuratⁿ does not go on
 briskly so as to form a large quantity of Pus — At length however, it makes its way thro' the
 skin; but if Suppuratⁿ is seldom good, being commonly mix'd with a great quantity of bloody
 Matter, or a watery Fluid & sometimes pieces of Gland or Fat seem to be mixed with it.
 After Pus is evacuated if Mucous secretes a considerable quantity of Fluid w^{ch} is slimy;
 this continues for some time, till at length a granulary Scab arises by w^{ch} Part is heal^d.

Not which evacuates from Gland But if whole of Pus contain^d in Gland is not evacuated, its only wt. is contain^d
 in one of its cells, this appears on Gnd cut out of Gland when there is a quantity of Pus
 still found; this occasions a swelling in Gnd, then commonly at w^{ch} Next Spring w^{ch} of
 Part becomes strong if Gland inflames again & suppurates a 2^d time, & this happens for
 5 or 6 times till whole of Pus is evacuated out of Gnd cavity of Gland.

Mesenteric Glands affected Fresh Glands continue to be thus affected, & thus of *Dis^e* goes on till w^{ch} Person by strength of
 Habit gets better of *Dis^e*. — The Mesenteric Glands are also affected; if they break (w^{ch}
 I suppose y^e seldom do) if Pus is evacuated into Gnd cavity of *Abdomen* — The belly

Dropsy produced sometimes a Cancer comes to be swollⁿ & hard with^o any fluctuation, & sometimes where *Habit* is very weak a
 Dropsy is produced; & sometimes from Gnd evacuation of Gnd water if Part is so weak as to be drop^y
 — And sometimes w^{ch} the Lymphatics are mix'd wth other Glands, a Cancer has been produced.

It has been thought dangerous by some to cut out an affected Gland for fear of its becom^g
 Cancerous; but I suppose they mean no more by it by incision than an ill conditioned Tetter,
 & all those Ulcers are very difficult to heal — But if Lymphatic Glands are only affected
 the *Dis^e* is hardly ever Cancerous.

10th the Part becomes gradually stronger he becomes free from these Inflammat^{ns}; at last
 w^{ch} he comes to be from 14 to 26 years he gets quite rid of these Inflammations.

Of the Scrophulous

comes on in
decline of life

Race

Strengthening Meds

Enlarge of Glands
if can't be resolved

Stimulants

Default in old Age

Prevent
by
many
of
Sanguineous
Temp.

The Scrophulous continues until he is 40 or 50 years of age, then the Glands of the Eyes begin to be affected with it, if first appearance of it Dis^e, also some gripping Pains in the Bowels; sometimes the Glands swell, there arise Ulcers in the Testicles & many times Carious Bores, by which at length the Scrophulous is destroyed.

This Dis^e is always naturally cured, at least in 30 Years, and 100, 120, if the Scrophulous strong, Strengthening Meds are therefore of great use by help of which these Glands of hard Abscesses find way have of Matter resolved, & new vessels are generated from taking place; the Scrophulous is thereby cured unless there is a quantity of it in any particular Gland, which can't be got out till the Scrophulous is destroyed.

We are to apply all of different Meds used for strengthening of System & by of means we readily get rid of the Dis^e. But when a Gland is so affected that Matter can't be resolved, the best way to cut it out, as we can't get rid of it by complaint so soon in any other way — after it is cut off we are to give a considerable quantity of Bark to bring on a laudable Suppuration.

Stimulants also such as of Rhus have been applied with wonderful Advantage. By these means we heal the Ulcer, & then we strengthen the System to prevent a return of the Dis^e. The greatest difficulty is, where there are several Glands of it, will suppurate one after another.

This Dis^e is much more difficult of Cure in old Age — some of these Affections are never got of better of, such as Inflamm^e of the Eyes & of Glands of the Testicles — Ulcers we may heal by application of the Bark. — But after the Dis^e is cured the very apt to recur in different parts of the Body. All we have to do is, to prevent them from running to too great a head — But Strengthening Meds have not the effect in old Patients as they have in those of young.

Persons affected with this Dis^e should marry Persons of strong Sanguineous Habits, & the Children of such Parents should be brought up in the best manner, by use of proper Food, wholesome Air & proper Exercise, which are of best Methods of preventing this Dis^e from being introduced on their posterity.

Of the Sea Scurvy

Of the Sea Scurvy

Let us now to consider of putrid state of fluids and takes place in particular circumstances & especially in the sea scurvy. — The blood for its most part can't be so affected as to be rendered in any considerable degree putrid, as those parts which are already putrid are carried off & fresh quantities of blood are constantly forming out of it. — The common names of putrefaction are such in of human body, if it were to place of body exposed of heat & exposure to air but for a few hours after death it would putrify.

But if action of vessels on the fluids prevents this putrefaction from taking place, for as vessels are cut & strongly there is hardly no degree of putrefaction carried on, but as the vessels are cut & weakly this putrefaction readily takes place, wherever cause therefore weakens of vessels increases of putrefaction; thus long continued & worse, great evacuations depending on this putrefaction of fluids, but not to of degree as to produce a Disease.

Thus in a Fever, when of blood is greatly weakened there is a putrefaction begun, but this is not a part of of disease, for when of blood is in its most putrid state of crisis takes place & even where this putrefaction arises fastest it does not arise to of height as to destroy.

Some suppose of putrid vapours act as a ferment; but I greatly question this, for as a putrid Fever begins at first, of blood is very perfect, of pulse is hard & of blood inflammatory. Putrid vapours however assist of other causes to bring on putrefaction — The sole cause

of bringing on a putrefaction of fluids is not on Animal Food — There have been some Instances in which putrefaction has been lost on where Persons have lived in a great measure on Vegetables; but this is very seldom of case.

As of food is cast into of stomach to be formed to chyle, this again is changed into blood & putrifies, as soon as of neutral salts are separated from it, & is afterwards evacuated. — Now if we throw in a large quantity of Animal Food into of stomach, part of it is not converted into chyle, & enters in this state mechanically combined with of chyle into of blood, this does not pass thro of proper fermentations necessary to become blood as it wants an essential ingredient for its purpose which is of sugar, or at least this is found therein but in small quantities. — The consequence of a quantity of Animal Food being introduced into of blood

Of Putrefaction of fluids

Prevent by strong action of vessels

increased by weakness

Loss on Animal Food the grand cause

explained.

Of the Sea Scurvy

with^d. by pass'd into Chyle is, if it will enter into y^e only Fermentatⁿ: it is capable of w^h is y^e Putrefactive; for it can never be converted into Blood unless by first conversion into Chyle. but will continue to putrify till such time as it is cast out of y^e Circulation.

There is not y^e danger aris^g from vegetable Subst^s: get^t into y^e Blood undigested as they are not liable to y^e putrefactive Fermentⁿ. — Another thing is, y^e Putrefactive Fermentatⁿ is prevented from tak^g place in y^e vessels by y^e Fermentation of y^e Blood, for one fluid can't ferment into two kinds of Fermentatⁿ: at y^e same time. If we take wine wherein there is a quantity of sugar dur^g y^e time y^t sugar remains it is prevented from run^g to another Fermentatⁿ: but as soon as y^t sugar is destroy'd, if it is placed in proper Circumstances, it will readily be transform'd into vinegar — So while y^e Blood is pass^g thro' y^e Fermentatⁿ: of Chyle Lymph, Serum: it will not putrify. But as soon as over these Fermentatⁿ: are past thro' it begins to putrify. — If a quantity of Chyle is thrown into y^e vessels w^h has a large share of Sugar it will take longer time in be^g pass'd into Blood, than if it had no sugar in it. — The want of Sugar in Animal Food is one

reason why it putrifies so readily. — Now it is not every kind of vegetable Food y^t will cause Animal Food to ferment & thereby chang'd into Chyle, & therefore y^t prevents this Putrefaction from tak^g place — If we were to throw in a quantity of Animal Food alone into y^e Stomach it wou'd putrify, but if we join some vegetable Subst^s: with it there will be an Acid in some measure generated — It is not all kinds of vegetables y^t have this Effect; y^e farinaceous parts of vegetables divide & not bekd into Bread have not this property; accordingly we find y^e Persons liv^g on Animal Food alone or only w^h y^e farinaceous Foods along with it, are liable to this Dis^e: of the Scurvy.

Now tho' this is almost y^e only Cause y^t can bring on the Scurvy yet it may be assisted by many other Causes of Putrefaction — For tho' while a Person is strong even Animal Foods alone will be well digested & almost y^e whole of it chang'd into Chyle, but as soon as a Person is weaken'd the Chyleferous Fermentation is not produced — Hence it is y^t Putrefaction arises to a greater height in weak than in strong Habits.

Of the Sea Scurvy

putrid vapors Besides, Putrid Vapors apply'd to *of* Body, altho it is not of itself sufficient to produce a Putrefaction, yet w^o apply'd along with Food *if* is liable to putrify, it greatly increases *of* effect of *of* Food. — It is observable *of* while *of* sailors' spirits are kept up this Dis^e does not appear, but as soon as they become discouraged great numbers are thrown down in *of* Scurvy. — Some imagine *of* sea Air is particularly adapted to form *of* Scurvy, but it takes place on Land as well as at Sea, in Gardens particularly when they chiefly on Animal Food & dry farinaceous vegetables. —

thick evacuations

Another Cause w^h does promote putrefaction of *of* fluids is the thick of evacuations, for if evacuations go on freely *of* Scurvy does not appear so soon, because those Parts *of* are putrid are carried off by these evacuations, but if they are restrain'd, these matters are accumulated; hence it is *of* *of* Scurvy is worse in cold climates than in hot, tho' it prevails to a considerable degree in all climates.

Putrid Food

Food *of* is already rotting or putrefaction renders *of* case much worse: all salt meats are more or less putrid tho' they are not ferment, for there are diff^t stages of putrefaction, tho' they are sometimes a little ferment. Besides, by *of* salt they are render'd less liable to enter into fermentation & therefore less liable to produce Chyle, so *of* those who have liv'd on *of* salt of fresh Animals have been quite free from *of* Distemper, while those who have liv'd on salt meats have been greatly affected therewith.

Instructions & Prognosis

The first symptoms *of* appear of this Dis^e are those of Weakness & Irritability, loss of appetite, weakness of *of* Muscles, quickness of *of* Pulse, increase of *of* Swelling Paroxysm — Symptoms of putrefaction are bleedg *of* *of* gums & nose, black spots under *of* skin; itchy or *of* skin, little Pimples terminal in Ulcers w^h instead of produc'g good Pus are spreadg — Then there arise, spasmodic contractions of *of* Muscles; contractions of *of* Limbs; callosities owing to *of* loss of *of* Defects w^h suffers *of* bony Matter to be taken up, & *of* Limbs have appear'd broken, the Sea skin not so perfect when Ulcers were heal'd, they are liable to break out again. Is *of* by *of* symptoms of Weakness & Irritability together with *of* Putrefaction of *of* Blood the Dis^e has been destroy'd.

Cure

By proper Food

This Dis^e never admits of a Natural Method of Cure, for if *of* Put^d does not make use of proper Food, he is destroy'd. — The first thing therefore is to get proper Food for *of* Put^d; this is no difficult matter to do at Land & therefore there is no easy to cure *of* Disease — It was very frequent at one time in England, & owing to a very London Cause w^h was

Of the Sea-Scurvy.

of Subsistants then made use of nothing but Animal Food mixed with a few innocuous parts of Vegetables, for Salads & Greens were not known. — I have seen Persons on shore who have been thus affected by such Animal Food only. — But at sea 'tis difficult to get these Provisions if we are liable to it, we must therefore choose those kinds if we must have any, & at the same time will produce the most powerful Effects.

Of preserving Animal Food itself, it is a question whether it may not be better preserved than by use of salt; there are some Subst. which will preserve it a considerable time, this may be partly done by pouring upon it a quantity of brimsd Oil so as to cover it. — It is a question therefore whether it would not be a better method to roast or broil it & then to cover it with Express Oil or Fat may not be of last means of preserving it.

A small quantity of Acid joined with a salt has been found to be of service, & it will not then require so great a quantity of salt. — Officers who carry with them a quantity of lean Stock are much less affected with it than if warm or sailors who live on salt Provisions. — It is impossible to supply a Fleet with Greens, if it could be done of this we'd be provided. — One Summer our Fleet was in the Bay & regularly supplied with Greens, there was not one Person sick of it Scurvy; but this can't always be of use.

Other Subst. have been proposed to supply their place — Dr Lind proposed, to preserve Greens by salting of them; & last Summer I tried of diff. kinds of Greens & salted them with a pure salt; but they were preserved only for a couple of months & then they putrefied.

The only method is to make use of a Stomach Acid, which is made by throwing a quantity of Greens being first dried & afterwards moistened with water into a Barrel with spices when they are set to ferment, as soon as they become sour they are to be fastened down & preserved from air; they may be thus preserved a great while.

Acids have been supposed by some to be capable of supplying if want of Greens, but those only which are capable of entering into Fermentation such as of Native vegetable Acid are of use; the Juice of Lemons or Limes or of Sour Apples may be employed for this purpose.

Fermenting Matters alone are of little Advantage; the Blood putrefies very readily without are inhibited; but are fermented into Bread they are of use, for if they are fresh Baked they enter into fermentation, & also promote the fermentation of Animal Food.

Of the Apoplexy

There might be a Distill'd found to Bake Bread by a small Alteration in it. — *Drinking of ferment'd Liquors* instead of Brandy & Water may be of great Service this might be easily managed. — There is no such Utensil as is more than portable Soup for as it so rarely discharges in it. — *Strength of* It is of great use to keep up the strength of the Patient by a proper degree of Exercise & by strengthening Diet; but with proper Food all will be of little avail. — *Charlins* in it. — It is of use to prevent the Swelling from appearing so soon as it would otherwise do. — *Food* Give one of Means to be apply'd to prevent its taking place, & to get rid of it as it has made its appearance. — If it is risen to a considerable height digestible Food must be of Use, any kind soon Grasp will do if no other can be had with. But there are some kinds preferable to others, the Tetradynamia & Liliaceae are preferable because they enter readily into Fermentation, they promote Digestion & are Diuretic; this may be pursued in Vinegar. — It is also better to get the Patient warm in if they get into a much cooler & purer Air. — *Strength of* Diet: are of Service even when other Diet: are us'd. — Only it must be observ'd, if where the Patient is very weak he is liable to die in consequence of his being removed; in this case it is better to administer of digestible subst: till such time as he may be removed with safety.

Of Apoplexy

Cause

The Apoplexy always arises from a pressure on the Brain in consequence of a sudden Extravasion of Fluids; it is seldom if a gradual Extravasion produces Apoplexy, it generally produces Stupor, Lethargy & a loss of the Functions of the Body, w^{ch} symptoms continue in creas^t till the Patient is destroy'd. — But wⁿ there is a sudden Pressure, an Apoplexy takes place; this is generally by Extravasion: for tho' the Blood may be thrown on the Brain so as to compress it, yet the Patient is then destroy'd in a diff^t manner; for there is a Stupor & low delirium & sometimes before the Patient dies he falls into violent Haemorrhages, this is w^h takes place in an Inflammⁿ of the Brain.

Of Extravasion
& their Cause

Extravasion may be of two kinds, either of the whole Blood, or of the Serum only. The whole Blood may be extravasated either from Wounds or Arteries. — It proceeds from Arteries w^{ch} commonly are Exhal^t Vessels wⁿ the red Globules are forced thro' them w^{ch} usually only secrete the Serum. — Wⁿ any particular Artery of the Vessels happens in any part,

Of the Apoplexy

When such an Hemorrhage takes place; & this may happen in y^e Brain between y^e Meninges & y^e Ventracles. — Perhaps an Artery may sometimes burst, as in y^e case of Convulsion, & soon Apoplexy may take place. — Another Cause of an Hemorrhage is y^e Rupture of a Vein. The Arteries seldom break, y^e Veins often do in y^e Melancholic Temperament w^{ch} is risen to any height; the Veins are in such very full, & sometimes burst, as in y^e Veins of y^e Leg where y^e Blood runs out in great quantities to y^e cellular Membrane; also Veins abt. y^e Anus, fr. whence an Hemorrhage takes place. — That such a Rupture takes place is send^d from y^e Colour of y^e Blood w^{ch} is of a dark reddish red; & this Colour led y^e Ancients to form their Notion of Black Bile or Melancholy. — This blackness of y^e Blood evidently shows these Hemorrhages to be all of y^e venous, for y^e Blood in y^e Arteries is as florid in these as in any other Persons. — Now w^{ch} there is any pressure of y^e Veins of y^e Head by a want of Circulatⁿ thro' the Lungs y^e Blood being so accumulated in y^e Veins there as to cause this rupture.

Exacerbatⁿ of
Hum.

This Dis^e also arises from a great quant^y of Serum thrown out, w^{ch} may take place by pressure on the Veins or Lymphatics particularly abt. y^e Neck. — It may also arise from great weakness in y^e Absorb^t vessels, or debility of y^e vessels in general.

Apoplexy diff^rg
from other Dis^e.

But we are to observe y^t many Fits y^t are call'd Apoplectic are not so; all sudden Deaths are call'd apoplectic. — If Gasulivertus or a volatile fluid is apply'd to y^e Nose, y^e Person dies instantly. — A Person may die suddenly of y^e cold Fit of a Fever, as many have dropp'd down dead of y^e Plague, w^{ch} can't be call'd an Apoplexy. — A great many other causes may be assign'd for sudden Death.

Prognosis

Whenever an Apoplexy takes place from any Cause, the Pat^t. complains of a violent Pain in his Head from y^e sudden stretch^g of y^e Parts; they often cry out y^t they are shot thro' y^e Head; the Pat^t. drops down with^o any sensibility as in a profound Sleep; sometimes he drops quite dead; sometimes y^e Pat^t. breaths but little & y^e Arteries hardly beat. If y^e Dis^e is slighter he breaths freely, y^e Pulse is rather large, full & slow; after having lain for some time insensible he is sometimes recover'd, & frequently a Palsy takes place, w^{ch} is follow'd by a great Fit, & y^e Pat^t. is cut off.

Of the Apoplexy

Sometimes he recovers quite, there remains a Stupor for sometime wth goes off soon, but generally wth of Par^t has one Fit he is liable to it again.

Wth of Extravagation takes place, if it is very great, if Par^t dies instantly, but if it is not so great, the breathg & Motion of y^e Heart in some measure continue, but if the pressure is still less, y^e breathg & Pulse are free. — Some have imagin'd that this difference took place from y^e pressure b^y made upon diff^t Nerves, but this can't be y^e case, for it is manifest y^t y^e same Nerves serve both for voluntary & involuntary Motion.

If the Fluid sh^d be reabsorb'd, y^e Par^t recovers, but if this is not y^e case, a Palsy takes place, but as y^e particular pressure becomes more spread over y^e Brain, so y^e symptoms may be in some measure lessn'd with^t absorption, but we don't find y^t this is y^e case in Conclusions where y^e Apoplexy continues till y^e absorption takes place. Accordg to y^e degree of y^e absorption then so will y^e symptoms be, either a Palsy, or a Stupor, or perfect Health.

— Melancholie Of the People y^e are affected with this Dis^e, one half of y^m are so in consequence of Temp^r: usual cause of Melancholie Temperam^t. — Old People in wth this is risin to a consid^l height are frequently carri'd off by it. — Persons who are subject to this Temperam^t sh^d take particular Care how they increase it, wth maybe done several ways, such as by y^e use of a continual Stimulus of any kind soever, such as y^e use of Mercury, or drinkg large quantities of wine or eatg high season'd Food, these cause y^e Arteries to contract y^e y^e Veins to be enlarg'd. — This is also increas'd by study, especially those in wth y^e Mind is greatly abstracted from y^e Body, whereby y^e Body is greatly worn out & all y^e symptoms of y^e Melancholie Temperam^t soon take place. — Exercise also ~~the~~ produces it but not so soon as the other causes, hence it is y^t those Dis^e wth arise from y^e Melancholie Temperam^t belong chief^{ly} to y^e Rich & Learned. — He can't but it in his power to make use of Rich & high Food, & y^e other by their close application. — Mercury also increases it, & those who are naturally of such a Temperam^t by the liberal use thereof have been speedily cut off.

Of the Apoplexy

How Avoided Persons of an of this Temperam^t. sh^d avoid as much as possible of Appl^{ca} of such
 pass^g against Stimuli. to pursue their Studies moderately, or apply to y^m so y^t of Body & mind
 sh^d be employ'd at y^e same time. — Where this Temperam^t is rarer, persons sh^d
 be very careful of having any passion apply'd on y^e Veins coming from y^e Brain.
 — prepare any way The late Duke of Argyle, happen'd to sleep with his Head reclining to one side, a Vein
 burst in y^e Brain, & he died. I have known several Instances wherein Compression
 on y^e Veins has br^ought on an Apoplexy — Persons liable to this Temperam^t sh^d
 — by food of raising live on Food as easy of digestion as possible, & make use of a little Winespice
 as are necessary to digestion — Plain Dishes are easiest of Digestion — Milk is y^e
 most easy, & y^e best Stimulates least dec^y of time of digestion. — Exercise also
 moderate Exercise to a moderate degree is also useful, but great Exercise increases y^e Melancholic Temp^t.
 Casually good air also want of Exercise increases it. — Breath^g in free Air is of service, impure
 Air increases it. — There are not many y^t in order to avoid y^e Great Apoplexy w^d
 chuse to alter their way of living, but the Methods already specified are y^e best.
 Some have suppos'd y^t excessive Drunkeny dec^y increase this Temp^t, but this does
 not appear to be y^e case. — w^o a Pals^y has had a fit, these precautions are still necessary.
 In all cases of Apoplexy y^e taking away of blood is of Advantage where cause
 may arise from; nay in all Fits y^t are likely to destroy y^e Pals^y bleed^g is of service.
 If the Heart has lost its motion in an Animal, if you open a Vein it will be set in Motion
 again — so, that tho' this may be no immediate relief to y^e Head, yet as y^e Blood is
 accumulated in y^e Veins & y^e Heart tis of service — In Hysteria & Epileptic Fits tis
 but of little use — In y^e cold Fit of Fever bleed^g is sometimes of use to prevent y^e
 Pals^y fr^o being destroy'd, but unless Convulsions come on tis better to apply Stimulants
 to bring on y^e hot Fit; but as this will raise y^e hot Fit very violent it is best to do
 nothing at all unless y^e danger is very great; this may be known by y^e Parts of y^e Body b^y
 cold, & a Shaper not having succeeded — If the Pals^y is plethoric bleed^g may be us'd, if
 he is weak Stimulants may be us'd.

Of the Apoplexy

- Cure* In *Apoplexy* its always necessary to take away blood; by empty^g of vessels we give greater room for Distention, & relieve of symptoms in consequence thereof.
- By Blood* After *Apoplexy* is become sensible, Purg^g is preferable thereto for it causes of Absorption to be carried on more effectually — In Concupiscences & Irritations I have seen purg^g cause of whole of *Apoplexy* blood to be Absorb'd with. us of *Taepan*. — here we would purge constantly for several Days so as to have 5 or 6 stools a Day.
- Remedies* After blood^g if *Apoplexy* is not restor'd to his senses, we apply Stimulants; here where they restore of Sensibility & irritability of may be of service; tho' I believe many have been destroyed by of use of Stimuli of might be otherwise said; for Stimuli always increase of Extravasation; — hence tis a questⁿ whether they shod be us'd in of *Apoplexy* — Emulants are of much greater service. — Blisters are of best Stimul^{ts} we can use, for by caus^g of blood to circulate on of External P^{ts} of relieve of Brain — At of same time we apply such Purgatives as we use in of Dropsy we may apply Blisters externally; and till of *Apoplexy* is restor'd to his senses we use other Stimulants; but of free use of Stimulants in plethoric Habits does mischief.
- Food with Stimulants* are to avoid every thing of does Stimulate, the Food shod be of of easiest transport with? But of Solution of firmaceous Vegetables in water; for during digestion there arises an increas'd action of of vessels, & particularly those of the Head —
- breath of free* It is of importance also of of *Apoplexy* breath^g shod be as free as possible, & of he shod breathe pure Air; he is to be laid in such a Posture as not to compress any of of vessels head^g to the Thorax. — After of *Fit* is gone off, we are to avoid of re-production of it by of Method already describ'd. —
- After of *Fit* is remov'd it frequently leaves a Palsy; where this is succeed'd again by another *Fit*, of *Apoplexy* seldom recovers. — Where of *Apoplexy* goes off with any paralytic Stroke & leaves only a Stupor, of *Apoplexy* often recovers. — W^{ch} on one side is paralytic & of other side convuls'd, of *Apoplexy* gon^g by dies. — Where there is a fresh attack of *Apoplexy*, of shows of there is a fresh Extravasation.

Of the Palsy

Of the Palsy

This Dis^e consists in a loss of ^{of} Sensibility & Mobility of ^{of} parts of ^{of} Body, where ^{of} ^{of} Skin or ^{of} Parts beneath the Skin — A total Loss of them we seldom see by ^{of} name but only a partial one — The muscles are most liable to be affected & ^{of} Sensibility of ^{of} Skin; next to ^{of} ^{of} irritability of ^{of} whole Part; the Motion of ^{of} Vessels remains to ^{of} last; tho' in some cases ^{of} Motion of ^{of} Vessels has wholly ceased & ^{of} Part has mortified.

Cause
Prepuer

This Dis^e arises from several diff^t Causes such as, Pressure on a Nerve wth will render ^{of} Part Paralytic — 'tis true this Effect soon goes off on the Cause being removed; but this is done gradually & slowly, there arising a prickling in ^{of} Limb thus rendered paralytic — But if ^{of} pressure is continued for a consid^{le} time, the Numbness will continue & ^{of} Limb will be deprived of its sensibility & mobility. This may be apply'd to several diff^t Nerves; as ^{of} Nerves of ^{of} Brain for example, we have some Instances in wth ^{of} Nerves of ^{of} whole Brain have been thus compr^{ss}d, but this is seldom ^{of} Case. — The Hemiplegia is ^{of} most common. — If you make a pressure on ^{of} Brain of an Animal, on part of ^{of} Body will be paralytic, & the other part will be convuls'd; this is very extraordinary; but tis frequently as if a line had been drawn thro' ^{of} middle of ^{of} Body & not a bit of one part of ^{of} Body will be affected with Palsy, nor of ^{of} other wth Convulsion! — The Pressure may be made on ^{of} spinal Marrow, & then the Nerves of lead to ^{of} several parts of ^{of} Body will render those parts paralytic — If the pressure is made betwⁿ ^{of} first & 2^d vertebrae of ^{of} Neck it will be attend^d with immediate Death — Those Animals ^{of} are not easily kill'd, yet wth ^{of} Brain is compr^{ss}d here it is instant Death to them; as is ^{of} Case with Sel. — a Dog is kill'd instantly, & ^{of} much sooner than if you were to cut off ^{of} greatest part of his Brain. — If the Pressure is made lower down towards ^{of} small of ^{of} Back, then ^{of} lower Extremities & Abdomen are affected — If any particular Nerve is compr^{ss}d then that particular Part to wth ^{of} Nerve leads is affected.

Of the Palsy

Sedatives

There are other Causes w^{ch} produce this Dis^e; such as if Application of Sedatives; thus if Vapours of Lead produce Palsies in those particular parts to w^{ch} y^t Vapour is apply'd; thus the Muscles of y^e Breast, or y^e Hands & Arms of Painters are wond'rd paralytic — w^{ch} if Lead is apply'd to y^e stomach, the stomach & Intestines are affected — If y^e Lead is apply'd but for a short time, y^e Action of y^e Parts may be easily recover'd; but if y^e Application is made for a long time, they will not be recover'd naturally, & even can hardly be done by Artificial Methods. There are few other Sedatives y^t have this Effect.

Causes unknown

There have been Palsies arisen in diff^t parts of y^e Body, & Hemiplegias have been produced when there has been no Subst^e found y^t could compress either the Nerves or y^e Brain; so y^t there are some Causes of Palsy y^t we are not acquainted wth. Some have supposed this is owing to some Obstruction in y^e Nerves, but we don't know any thing of this; conjectures unless supported by Experiments are of no use. — The

Proper treatment

greatest Member of Palsies arise either from pressure or y^e Application of Sedatives. Pressure may produce it where it is not suspected, & where y^e pressure does not continue, as Persons have had their Arms become paralytic by leaning on them in such a manner as y^t a pressure sh^d be made upon y^e Nerve, & sometimes y^e Palsy has continued ever after. — It is possible there may be a Pressure on y^e Brain, & yet y^e Matter may be reabsorb'd before the Death of y^e Part.

Distinctions & Prognosis

The symptoms of a Palsy are y^e loss of Motion & Sensibility of y^e Part; but these are not always lost in y^e same proportion; sometimes y^e Muscles lose their Motion while y^e Skin retains its Sensibility, & y^e Sensibility is also continued; sometimes y^e Sensibility of y^e Skin is also lost; sometimes a kind of soreness is felt in y^e Skin; sometimes y^e Limb is contracted, & sometimes one half of y^e Body is considerably swill'd in consequence of y^e Blood's not freely circulating thro' y^e other part; sometimes y^e Pulse becomes much softer & weaker; & sometimes y^e Limb mortifies for want of proper circulation; the Motion of y^e Heart is lost last of all. Particular symptoms take place in consequence of Palsies prevail'g in particular Parts; as in the Palsy of y^e Intestines there is a loss of their peristaltic Motion.

Of the Palsy

In a Palsy of μ muscles of μ Bladder, there is a suppression of Urine. In a Palsy of its Sphincter there is a constant discharge. — Of the Sphincter of μ Uterus, it is not contracted.

A Palsy taking place in some parts of μ Body may continue for a long time; but if seizes any of μ Parts necessary to Life, unless it soon remov'd it proves fatal. Thus in μ Intestines, the Faeces are accumulated so as to destroy μ Patient. — the same may be said of μ Muscles of μ Bladder. —

W^h a Palsy arises from a compression of μ Brain, tis frequently fatal, especially if it takes place in consequence of an Apoplexy, & more certainly if μ other part is affected with convulsions. — In this Cas. of Pat^t lies for 2 or 3 Days, but as he can take no Food, μ Pulse becomes quick, a fresh Apoplexy comes on, & he is cut off. — Or if μ Blood is reabsorb'd, μ Pat^t grows better, tho' there remains thro' μ whole of Life some degree of dumbness & inability of Motion.

Cure

Remove

Knowing Cause of this Dist^r of Part^s tis to take off μ pressure; where compress^d Cause is apply'd to μ Nerves, μ must be first remov'd; if it is a Tumor it must be remov'd.

Evacuators

— we shall now only take notice of μ transpiration Fluids on μ Brain; to promote their reabsorption tis necessary to make use of bleed^g & purging, as directed in μ Apoplexy.

but if we use Stimulants we destroy μ Pat^t as these increase μ transpiration. After we have made use of evacuations we must next bring μ Nervous Power to act again.

Stimulants

This is done by Stimuli, gon^g by those w^h act most universally & quickly are the best. The Volatile Linnim^t is of great use; Blisters are also of service — some have observ'd, if

Blis^t lay over μ Nerves is of great use such as Blisters apply'd to μ Spine; but this not found to be of greater service if blistering of μ Back — Mustard seed and the Terebintina & Liliaceae are of consid^l Advantage — Ruids w^h stimulate by μ apply'd in a large quantity, or Alkalies w^h stimulate μ Part to w^h they are apply'd are of no Advantage. —

Electricity

Electricity has been of service; if Electric Fire passes in a straight line thro' the Limb & stimulates not only μ skin but μ Parts below also —

Continually apply'd

These Mod^s sh^d be continued constantly in their applicatⁿ & in pretty large Doses — the most powerfull sh^d be made use of at first & continued — If the Part is restor'd, μ Pat^t sh^d continue in μ use of them; for if he omits μ use of Stimuli & at μ same time does

Of Eruptive Diseases

not make use of Exercise, & Part soon becomes as bad as ever; & if Stimuli then can't remove it Dis^e as they did at their first application.

Should be most
effective.

In universal Palsies, we apply Stimuli to the system in general; those of an universal, quickly & yet are not inflaming are of advantage — The Tetradynamia, such as Mustard used are of use; in order to prevent their Effects from going off soon, the Mustard used is given whole, so that their Essential Oil is taken off by it somewhat gradually — Volatile Alkali is also of service; the Liliacea or all of species of Arum are of Advantage; Garlic has been given in Cloves. — Gums have been frequently used, but I think with less Advantage. — The Resin of Turpentine & Essential Oils have not of same good Effects; for as we are afraid of reproducing Extravasation in the Brain, these Stimuli w^h are more transient in their Effects are to be preferred. — After we have got rid of Dis^e by the help of these Stimuli, we ought to be particularly cautious against a 2^d Effusion being produced, & to guard against it by the methods directed w^h treat of Apoplexy.

Of Eruptive Diseases

Scurvy
improperly so called

Eruptions or Inflammations on the skin are of several sorts — I shall first show the History & manner of treatment of w^h is call'd the SCURVY.

This Dis^e is very improperly so call'd, because it differs from Sea Scurvy in every particular. — If a Person was to recover Dr. Ward's white Drop in Sea Scurvy, he w^hld certainly destroy the Part if the Dis^e was far advanced.

Cause

This Dis^e is caus'd by too small a circulation of blood on the skin, in consequence of w^h there is not a sufficient quantity of moisture to preserve it & keep it in consequence of w^h it dries & inflames. — This Dis^e is common in the

Distinctions

Northern Climates, in hot Countries tis seldom found — It remains frequently on the skin for a considerable time w^hout any ill consequences; but if it forms whitish scales then blurs rise under them w^h are difficult of Cure; if it had spread still further & spread over the Body, then it prevents the motion of the Joints & forms the Dis^e call'd the Leprosy; this is only a diff^r degree of Dis^e.

Of Cutaneous Eruptions

Cause

humors

Erysipelas

Sometimes these Eruptions take place over the Body equally; & sometimes they arise in spots on particular Parts; these spots have diff^t names. — These Eruptions as they wholly depend on a want of a suff^t degree of Moisture on the Skin, are cur'd by promoting of Cuticular Secretion — where increases sweat renders the Skin moist & pliable & therefore curing the Dis^e. — We may employ for this purpose a variety of Med^s; Shouldst^{ly} Med^s dissolved in warm water and this the such as of Decoctions of h^{er}bs of Treas, the warm Bath &c. — But w^e are particularly depend upon for this purpose are Preparat^{ns} of Mercury & Antimony, by means of w^{ch} we can keep up a circulation upon the Skin & thereby cure the Dis^e. — The Mercury is best apply'd in its Salts, for we don't want to load the system with it; the Salts of Mercury & its Mercuria are apply'd with Advantage — Preparations of the regulus of Antimony are exhibited; Emetic Tinctar given in small quant^{ies} &c. &c. — It has been given alone, but it frequently purges, so if it is best to be given for this purpose join'd with Stimulants — we may give Mercury with it, but we can't give it with the Salts of Mercury because they decompose one another; for this reason therefore to give it at diff^t times — Other Stimulants such as h^{er}bs of Treas, Gum Guaiacum & others have been employ'd with Advantage. — 10th of Eruptions are in particular spots these

humors & wounds

Dark he

is more difficult of Cure, & also more apt to recur again w^{ch} of Cure is perform'd — Strengthening Med^s are of service to prevent this, but they will manytimes recur in spite of these — This recur^g of Eruptions is more apt to take place w^{ch} if Dis^e is risen to a considerable height of w^{ch} it only prevails in a smaller degree; tho' in this case, if Mercury & regulus of Antimony will cure, & w^{ch} this is perform'd tis of best way to interpose ^{along with} these Strengthening Med^s & small Doses of those Medicines.

Ulcers in Legs

Cause

Cure

Dark & Stimulants

There are certain Ulcers of the Legs w^{ch} are commonly call'd scabulous w^{ch} do not depend on this want of Circulation, & therefore sho'd not be call'd by this Name — These generally arise by means of slight Heals receiv'd, & in weak Habits are apt to spread especially if little care is taken of them — If these are not cur'd by rest they sho'd be reliev'd by a fresh & Stimulants — They are apt to recur — The best Method is to make Issues — but as if Eruption is very broad & liable to be broken they are apt to recur, tho' an Inflamⁿ rais'd by Issues will in a great measure prevent another Inflamⁿ from being rais'd near it.

Of Cutaneous Eruptions

Shingles

Another kind of Eruption if it is apt to take place in weak Habits is of Herpes call'd the Shingles — In this case, after a little Fever takes place there are Eruptions take place abt. of Neck, Face or Extremities, they arise in small Blisters, & if Neutral Salts stimulat^d of part they spread into little Ulcers, these produce a Fever in consequence of the Pain — This Dis^e is easily cur'd, the Bark destroys it's irritability & if Cal^d is us'd: but it is necessary to exhibit a consid^{ble} quant^y of Bark till we get it better off of Dis^e — W^h an Ulcer is produced, it commonly spreads fast & is difficult of Cure, but if applicatⁿ of Bark & Mercury internally & red Precipitate to it will effect Cure.

Itch

Cause

Another kind of Eruption is form'd by Animalcules w^h form little Inflamⁿ. This is call'd of Itch — we discover them by help of a Microscope, and it appears to be so because those Parts are most affected where of Mucus is thinnest & where of Animalcules can most easily fasten — This Dis^e is infectious, & appears frequently abt. of Wounds or Fingers, or where of Dis^e was first communicated — They form at first little Blisters, & on scratching they get further, then lay their Eggs & multiply. In strong Habits consid^{ble} Inflamⁿ are form'd such as Boils, on apply^g cold to of Body these Eruptions disappear, but w^h Heat is apply'd of Inflamⁿ come on again — If the Dis^e is suffer'd to go on, troublesome Ulcers are produced. — The Method of Cure is to pricke them with Sulphur, Mercury & Salts, Potash dissolv'd in Water has been also employ'd; white Hellebore is an efficacious Remedy. — Almost any of these Salts will cure, unless of Dis^e is risen to a consid^{ble} height — On of Applicatⁿ of of Hellebore these Inflamⁿ begin to suppurate, so of at first it appears to grow worse, but there are Scabs soon form'd, & of Dis^e recurs no more — I have cur'd some by this Remedy of: it not be us'd by any other means — Perhaps it cures not only by destroy^g of Insects but also by convert^g of into Pus.

Cure

Sulph^r. Mercury
White Hellebore

Sulphur is efficacious but is disagreeable as it is to be us'd with Express'd Oil; the Metastine Preparatⁿ are more agreeable than Sulphur but not so efficacious. — Sulphur has been given internally but it is of no use as it acts only on the Intestines, whereas Mercury may be carried thro' of Places of of Skin. — It will be proper to exhibit some Purges dur^g of Cure, for on tak^g off any Inflamⁿ is liable to arise in some other part of of Body.

Of the Diseases of the Urinary Passages

Part of the People of sanguineous Temper^{ts} are liable to Inflamm^{ts} in the sebaceous Glands abt. the Face
Sebaceous Glands & Skin — The Mucus is apt to dry & to be retained in the Glands in consequence of a thin inflammation — The suppurous matter appears like Pus w^{ch} it is pressed out; the Inflamm^{ts} then goes off & in a short time fresh ones appear. — These Inflamm^{ts} sh^d not be taken off by any external Application unless it be a dilute solution of Caustic Alkali — If you take y^e off by y^e Application of Sedatives in strong Habits you are liable to produce Inflamm^{ts} elsewhere — We are to give 2 or 3 Purgatives whereby y^e System is weakened & y^e Blood is prevented from circulating on y^e External Parts of y^e Body.

Pain in y^e Face There is another kind of Eruption w^{ch} is apt to take place in weak Habits particularly in Women in y^e Face & Hands; this is a kind of an Erysipelatous Eruption or rather a kind of an Eruption.
Cure It is to be taken off by giving y^e Bark & otherwise strengthening y^e System; tis difficult of Cure.

Erysipelas from Indigestion of Food In cases where indigestible Food is thrown into y^e Stomach & has been retained there for some Time, especially if viscid & Adhesive such as Fish; after two or 3 Hours there is a stronger action of y^e Vessels betⁿ on, & there arises an Inflamm^{ts} abt. y^e Head & Face; this is a kind of Erysipelatous Inflamm^{ts} at first but it leaves some Bubbles behind. — In this case the best way is to take off some Blood if y^e Patient is Plethoric & then apply Sedatives to y^e Head, we are also by Emetics to evacuate y^e matter out of y^e Stomach — Sometimes this brings on such a strong action of y^e Vessels as occasions a Suffocation.

Of the Diseases of the Urinary Passages

Diabetes Sometimes there takes place a very considerable evacuation of Urine, arising from y^e weakness of the
cause kidneys, this is call^d a Diabetes — This secretion is either coagulable with Heat, or on standing to cool concretes, or y^e either to y^e quantity of Serum or Coagulable Lymph w^{ch} are excreted; in consequence of w^{ch} y^e whole System is considerably weakened, there arises also a quickening of y^e Pulse attend^d with Thirst on acct. of y^e excretion of y^e watery Fluids of the Body.
Distinct If this Excretion is very great, y^e Patient is soon destroy^d, but if it is in a less degree, y^e symptoms of weakness come on w^{ch} at length destroy him. — In this case we employ the most powerfull Astringents to stop y^e secretion, such as Alum & Vegetable Astringents, & if there is time, we employ strengthening M^ds; if these will not do, we employ salts of Lead a not powerfull

Cure
Astringent

Of the Diseases of the Urinary Passages

Sometimes we are able to stop this secretion; but where the *U. Pass.* is very weak he is liable to be cut off.

Defect of Secret
of Urine

It sometimes happens that there is no Urine secreted at all by the *Kidneys* & therefore there can be none evacuated; there is no pain felt in the *Kidneys*, nor fullness in the *Bladder*. — After this suppression has continued for some time the *Blood* becomes putrid, at length the *U. Pass.* is seized with Fever & destroyed. — In one Case I was acquainted with the *U. Pass.* lived upwards of 20 Days before this effect took place. — We may here attempt to stimulate the *Kidneys* by the use of Diuretics, such as *Spigelia* & *Turpentine*, we may also place the *U. Pass.* in a warm Bath in order to reproduce the secretion; but very few *U. Pass.* have recovered out of this Dis^e.

Cure

Drinking
warm Bath

Suppression of Urine
from Stone

Sometimes Urine is retained in the *Bladder*, either by a Stone lodged there, or a contraction of the Neck of the *Bladder*, or a Palsy of the Muscles of the *Bladder*; in this case the *Bladder* will be distended with pain, a vast restlessness will take place over the whole Body.

Cure
Catheter

There arises a Delirium attended with Convulsions & the *U. Pass.* is destroyed. In this case we are to evacuate by means of the *Catheter*. But sometimes it can't be introduced, in this case some have advised an opening to be made above the *Pubis* & to evacuate the Water by means of the Trochar; but a wound of this nature is very difficult of Cure, & we can usually draw it off by the help of the *Catheter*. — Where there is a Stoppage of Urine we should immediately apply the *Catheter*, because the longer Urine is retained, the more it preps on the Neck of the *Bladder* & renders its evacuation the more difficult.

As soon as we have drawn off the Urine, we are to remove the Cause; if it is an Inflammⁿ it is to be taken off by the common means of Resolution; if it is a Stone, it is to be destroyed or cut out.

Strangury

Cause

It frequently happens that Persons are affected with a convuls^{le} device to evacuate the *Bladder*, at the same time they void but a small quantity of Urine at a time & with convuls^{le} Pain; this is called Strangury. — This arises from several Causes, such as a particular Stimulus, ab^s of the Neck of the *Bladder*, as in Blister^s; or if the Mucus is washed away of the Neck of the *Bladder* stimulate it; or by an inflammⁿ raised by means of a Stone lodged there.

Of the Piles.

Cure We are first to defend *of* Bladder from such a Stimulus by giving large Draughts of
Injection Watery Fluid & y^t contains solutions of mucilaginous & farinaceous Matter, such as
 Barley water with Gum Arabic; hereby we defend *of* Bladder from *of* Stimulus of these
 Subst^s & increase y^e quantity of Urine consid^g. — If it is owing to any inflamⁿ produced
 by a Stone, or Concreta Matter, then after we have thus relieved *of* Pat^t, we are to cure him by
Concordia Symp proceed^g to remove *of* Cause in *of* manner already described. — Inject^g Linseed Oil
 by *of* Anus has proved very efficacious in a Strangury arising from Blister, but in w^t manner
 it relieves is not so manifest.

Of the Piles

Cause Sometimes there arises from *of* Anus an Hemorrhage w^{ch} takes place two ways; either by *of*
Distinction Arteries act^g strongly & throw^g a quantity of Blood into *of* cellular membrane, w^{ch} is either
 wounded from thence, or ferments there & forms an Ulcer; or it proceeds from *of* extremities
 of *of* Vessels w^{ch} takes place in Melancholic Temp^r. — In y^e first, *of* Blood is of a florid,
 & in y^e latter of a dark colour. — If there is a considerable Swelling, w^{ch} we open it *of* Pronged off,
Cure if it is within *of* Anus so y^t it can't be opened by *of* Lancet, *of* Appliatⁿ of Leeches is of consid^l
Leeches service. — After *of* Swelling is removed, we are to prevent its return by giving gentle cathartics
Gentle Purgatives such as Sulphur, Cassia, Tamarinds & Manna, such as do not stimulate; there are to keep *of*
 Body constantly open; if there are not sufficient, Salap may be added wth Advantage —
 there are to be continued till *of* wound is cur'd, otherwise the hard Tumor ceases, Inflammation
 & there arises Ulcers very difficult of Cure — by these means *of* Ulcer is soon cur'd.
 If the Hemorrhage is periodical the Stoppage therof has *of some effects as *of* Suppression of
 y^e Menses in Women. — Some have apply'd astringents; but it is better to let *of* blood to go on
 sometime & to cure itself. — Ulcers form'd here are difficult of Cure wth any continuance on
 out. of *of* Bile contain'd in *of* Faces; but they may be heal'd by opening *of* sinuses y^t no Tumor may
 lodge in y^m & by giving constant Purgatives. — Wth the Piles have been stop'd, & hysterical
 Symptoms arise in consequence of it, by giving Aloes we frequently reproduce them
 Piles & Neutral Salt are to be avoided when *of* Hemorrhage takes place as they would
 increase it.*

Of Madnefs

Of Madnefs.

Definition

Madnefs has been defin'd to be a Delirium with a Fever. — A Delirium takes place w^h ^{disproportions} of ~~the~~ ^{the} mind do not correspond with external objects — Absence of Mind has also been call'd Madnefs. — There are but few of ~~the~~ ^{the} Causes of this Dis^{or} if we

Causes

are acquainted with. — In some case this Dis^{or} proves hereditary, this particularly happens where Inter marriages are frequent in ~~the~~ ^{the} same Family — Any disposition of ~~the~~ ^{the} mind carry'd to a high degree, such as violent Rages or Melancholy will produce it — particular Families have been remarkable for some Dispositions of Mind, hence it is, of w^h these Families intermarry among y^{ms}. these Dispositions have been carry'd to a great height so as to produce Madnefs. — It also arises from a constant attention to any particular Object of sense, as is the case of Persons in Love — And where ~~the~~ ^{the} mind has been totally occupi'd ^{at first} have been only present to ~~the~~ ^{the} mind, as Persons engag'd in deep Studies — Violent Rages such as Rage & Fear, produce Madnefs. — It is also produced by a Delirium of arises from any cause, such as in Fever, or from drink of a large quantity of Wine. — The influence of ~~the~~ ^{the} Moon greatly affects such Persons; as ~~the~~ ^{the} full of ~~the~~ ^{the} Moon Persons have been affected who were not so before — Many other Causes may produce this Dis^{or} w^h we are strangers to. — With regard to ~~the~~ ^{the} proximate Causes, we are strangers to y^{ms} also — Some tell us ~~the~~ ^{the} Brain is harder or firmer in such Persons; but this is of no consequence; Anatomists may easily find Causes for Disorders of ~~the~~ ^{the} never exist.

Distinctions

This Dis^{or} is very diff^t from ~~the~~ ^{the} Delirium of takes place in Sympetrical Diseases, here ~~the~~ ^{the} mind is totally abstracted from sensible things, & ~~the~~ ^{the} Pat^t has lost his sensibility and Irritability; he has no sense of Shame or Pain as People have who are not thus affected. sensible Causes have but little effect, & Mad^{nefs} don't operate on such, so ~~the~~ ^{the} of sensibility & Irritability of ~~the~~ ^{the} Body are lost — But it is not always in ~~the~~ ^{the} same degree; for in some cases ~~the~~ ^{the} Pat^t is sensible to every thing you say, till you bring back some Idea to his mind w^h has had a particular influence on him, & then he loves himself — but in this case ~~the~~ ^{the} Irritability of ~~the~~ ^{the} Body is considerably destroy'd. — At other times ~~the~~ ^{the} Dis^{or} attacks only by Fits at ~~the~~ ^{the} full or change of ~~the~~ ^{the} Moon, in this case, ~~the~~ ^{the} sensibility & Irritability of ~~the~~ ^{the} Body are diminished only during ~~the~~ ^{the} Fit.

Of Madness

Tho there is such a constant connexion necessary betwⁿ Body & Mind in order to carry on the Functions of Life, yet as y^e Sensibility & Irritability are in so great a measure destroy'd Mad Persons are very long liv'd altho' expos'd to all y^e Causes of Dis^r.

Cure
Body
Purgatives

In order to cure this Dis^r. we apply Remedies both to y^e Body & y^e Mind.
We apply to y^e Body such Med^s as increase y^e Irritability — we have no such o^r; do immediately produce this Effect — We make use of Evacuatives for this purpose, & repeat Purgatives in order to increase y^e Irritability. — Diff^t Purgatives have been exhibited; they must be very powerful; I have seen a Madman take half an Ounce of Calomel, two Ounces of Symp^l of Buckthorn, & an Infusion of Senes, & yet it has hardly purg'd him. — We did not begin however with large Doses as y^e degree of Irritability is not y^e same in all; but an Expectorant longer Dose y^e we do in common & chase to make use of y^e Stimulat^g Purgatives — Some have been particularly recommended, such as y^e Black Jalapine; but we don't know y^e this has any particular Virtue, it loses its Effect by keep^g; but so recent it proves pretty powerful, it also has of late been pretty much laid aside, & y^e its Expectorant in a few Days can't sufficiently ascertain its Virtue. — By repeated Purgatives in some Cases we cure y^e Dis^r. — But if y^e Madness comes on gradually & slowly, & has continued for a long time the Dis^r is incurable. — Other Med^s have been made use of; all y^e Antispasmodics have been givⁿ on; now those can have but little Effect unless they sh^d be continu'd so as to increase y^e Irritability of y^e Part.

Mind

Cure of Mind y^e best & necessary with respect to it is to bring y^e Object w^{ch} occupies his Thoughts if possible before him; where this can be done both Body & Mind are immediately restor'd into a proper State: thus a Woman in Love has been immediately cur'd by a sight of her Lover; A Man y^t was mad with Study has been cur'd by sett^g him upon a Course of Experiments; if y^e Madness arises from some other Cause y^e Part ought to be employ'd y^e his Body and Mind may be engag'd in. — But if frequently happens y^t we can't cure y^e Dis^r w^{ch} it arises from y^e Influence of y^e Moon, or it arises from an hereditary Disposition, or w^{ch} manifest Cause

Mind & Body engag'd

Systemic Madness

The Systemic Madness is attended with all y^e Symptoms of Irritability, & is to be cur'd by y^e Bark & strengthen^g Med^s; it's gen^l a kind of Shew or fool's shew of effects y^e Part.

Of the Gout

Of the Court

This is a Dis^t. of peculiar toly melancholic Temp^{ts}. — It arises with the ordinary

Reizung Melanch. Symptoms of Inflammⁿ tho' it does not go on as other Inflammⁿ are to do.
Temperam^t. In youth Persons have if Arteries & Capillaries much larger than the Veins, the Capillaries

Now this lake, place are more numerous & of Asteris larger. This is manifested by of Plumbeus to be observed in this.

But as Persons grow up & Worms become larger & of shorter life - This change continues to prevail till at last & Intestines lose their contractile force, & they fear their contraction as much.

by their Elasticity as by y^e Power dependg on y^e Life; & y^e Capillaries become so small as to contain but little Blood in y^m; in this case y^e Blood is chiefly contained in y^e Veins;

This takes place particularly in old age, & many Dist. depend upon this Temperam^t.

The Organs come then to be so very, where impair'd, & various. The hemorrhages take place

if there should happen a considerable degree of emigration from the N. E. of our colonies
= some of Melancholic Temper to them this Dis^o of the Gout frequently takes place!

It is frequently occasioned by extraordinary Exercise, hard Drunk &c or &c free use.

of Stimuli, hereby a greater quantity of Blood is thrown into of Arteries & a Disposition

takes place & symptoms extremely similar to of Inflaming Drains, Burns or Accidents
in the face & neck. The whole body. These take place particularly in the

spring when a system is strengthened by a lot of a forced winter w. the

arteries happen to act strongly at this time, y^e throw y^e Blood into y^e capillaries in large

quantities; this takes place particularly in the Rheumatism, the symptoms more or

usually arise then first, particularly abt. of great age - inflammation of the
 2nd. the same body & tissue with all its symptoms of inflammation & it would be

It will be disimprovement if two Dis. if Boat had gone on to Supperation, which it

never does. — wt. of capillaries are thus distended, a quantity of serum & coagulable lymph

are thrown out into of cellular membrane; this recovery of sweat, if action of of arteries

Subside, till some fresh cause brings on a fresh demon of yewerels.

Considerable time before any other part is affected; it frequently arises there with: previous symptoms

Of the Gout

The ~~Dis~~ continues ^{there} till if Pat^t is weaken'd & render'd more irritable then it affects
 of Knees & Hands & all of other parts of of Body. — It is remarkable, if of Matter
 of Calcareous Salt thrown out into of cellular Membrane is either at first or comes to be Calcareous Earth
 produced & how.

It is most probable if of Fluids are first thrown out & lay abroad again leave of Calcareous
 Earth behind — Old People have a much greater quantity of Calcareous Earth in them of
 others; this is manifest by their being more subject to of Stone, & Ossification of of Arteries
 than others — The Reason is evident, w^{ch} is, if their Juices are more putrescent than others
 The flesh of old Animals & very young ones putrify readily; they are also more in-
 soluble in Water — the Calcareous Earth is produced by of Putrefaction carried on in of Soft

Prognosis

— The whole of of Body comes at last to be affected particularly of Head & of Stomach.
 it arises with violent symptoms of Inflammⁿ, quickness of of Pulse & great pain — At
 this time tis liable to shift from one place to another, & after of symptoms are remov'd
 in one Part they are liable to arise in another — And sometimes these symptoms arise to
 such a height as of of Pat^t is destroy'd thereby, particularly by symptoms of Inflammⁿ in
 of Brain — But if this is not of case, of Pat^t is render'd very weak & irritable & so is destroy'd
 tho' this may not take place in some till 20 or 30 years after of first attack.

This Dis^e seldom takes place in women because they are not very sanguineous or
 Melancholic; their vessels are more numerous as is manifest by their plumpness; women
 who are subject to it are those Temperam^t resembles of of Men.

Precognition

When increases of Melancholic Temp^t is liable to bring on of Gout; such as of Use of
 Mercury, high living, eat of gr^t quantity of Food of difficult digestion & use of Stimul^{ts}
 is assist of digestion; Abstractⁿ of of Mind for of Body in Study; drink of large quantities
 of Wine &c — w^{ch} of Gout is once produc'd, of best method is to do nothing at all — Not but
 w^{ch} we can take off of symptoms of Inflammⁿ or prevent of Dis^e from rising to a great height, in of
 Consequences of we dread — We can take off of Inflammⁿ by of Application of Blisters
 & Sedatives, but we are liable thereby to render of Dis^e universal & in consequence thereof
 to destroy of Pat^t much sooner. — We can prevent the Dis^e from recurring by of use of of

Cure

Of the Peripneumonia Notha & Ulcerous Sore Throat

But, but we do it with great danger because we thereby increase of Melancholia Simp.
by increase of contraction of y^e bely & bring on many times worse Dis^s such as Apoplexy
& Palsies. so y^t it is much better to bear y^e pain y^t to render y^e Dis^s universal or to
produce a more violent Dis^s.

In case of Gout sh^d become universal & affect
Applicatⁿ of Stimuli to the Head or Stomach, by y^e applicatⁿ of Stimuli we take off y^e Fit, the most powerful
are employ^d for this purpose. — Where y^e Nervous Influence acts irregularly by
increase of its action by y^e use of Stimuli, tis render^d regular, this is seen in Spasmodic
Contractions of y^e Intestines, by apply^g Stimuli to y^e Stomach we cease of Nervous Inflⁿ
to act more powerfully & thereby take off y^e contraction. — So it is in y^e Gout, if we
were to use Stimuli at first, we sh^d bring on y^e Fit, but w^h y^e Habit is weak
& irritable by y^e use of Stimuli, we prevent it from act^g in y^e particular part
the Spices, Volatile Alkali & such powerful Stimuli are employ^d with Advantage
where y^e Dis^s affects y^e Head, Stomach or Intestines. — W^h the Dis^s becomes
thus universal, tis frequently of use to employ strengthen^g Med^s — we in this case
increase of Melancholia Simp^t but we do not run y^e same hazard of destroy^g y^e
Pattⁿ by an Apoplexy

Of the Peripneumonia Notha & Ulcerous Sore Throat

There are two cases of Catarrh w^h we have omit^d mentioning & w^h we shall take notice
of here, both of w^h are accompany^d wth Fever —

In the First, y^e Catarrh is attended with a Fever, in w^h there is a Load on y^e Breast attend^d
with shortness, a secretion of thin Mucus, anxiety ab^t y^e Precordia, Headach be
y^e same symptoms y^t we describ^d as attend^g y^e Nervous Fever — The Pattⁿ continues
to grow worse & worse, y^e Fever increases, the Catarrh goes on as usual, there arises
a secretion of thicker Mucus; at length the symptoms of weakness come on by w^h
y^e Pattⁿ is cut off, tho' at y^e begin^g of y^e Dis^s it appear^d very trifling.

This has been call^d by y^e name of y^e Peripneumonia Notha.

We are to treat the Fever as we treat a Nervous Fever by support^g y^e strength
of y^e Pattⁿ, & the Catarrh is to be treated as we have direct^d under y^e Head.

Peripneumonia Notha

Distinctions Prognosis

Cure

Of the Ulcerous Sore Throat

Ulcerous Sore Throat The other case is where the mucous Membrane of the Throat is affected with Ulcer,
 & has of late gone by the name of the Ulcerous Sore Throat. This frequently happens
 Distinctly Begins at the beginning of a violent Fever, in the same manner as an Erysipelas takes place out
 of an Inflamⁿ of the Skin. This does not take off the Fever but goes on along with it
 — we sometimes have this Dis^e take place with a Fever, w^h arises afterwards.
 w^h if Fever arises with consid^l violence, it is a Dis^e of great danger, for we
 have two Dis^e here. This Inflamⁿ of the mucous Membrane is attend^d with some
 little swelling, the Deglutition is hard, & the Respiratⁿ is also a little impeded.
 The Membrane comes to be covered with Mucus of a whitish or brownish Colour.
 Kind of Aphthae take place w^h are very apt to run into Gangrene. — Many times
 if Fever also goes on so as to destroy the Pul^s in the second week, it is attend^d with
 Symptoms of a putrid Fever.
 Cure At the beginning of the Fever we would endeavor to put a stop to it by Med^l prod^y resolvable.
 Med^l prod^y resolvable or if it will not on we proceed supporting the strength of the Pul^s in the immediate
 in the Putrid Fever. — With regard to the Dis^e subsist^g in the Throat External Stim^l
 Internal Stimulants such as Blisters & the volatile Linim^t are of service; Sedatives are also of the advantage.
 — The greatest danger is, w^h if Gangrene begins to appear, we are then reduced to
 a difficulty, either to increase the Fever by the Administration of the Bark, or to suffer
 the Dis^e to go on till we have a remission before we give the Bark. — If there is not
 an evident danger of a Gangrene, we don't dare to give the Bark without an
 Intermission. — There may be some hardness of the Pulse, but it is hardly
 proper to take away any Blood.

Of the Diseases of Pregnancy

Of the Dis^t of Pregnancy

Of Generation

Before I enter on y^e Dis^t of Pregnancy I shall give you a sketch of y^e manner of Conception.

The Male Semen is thrown into y^e uterus — it is asserted by some y^t there are animalcules in y^e Semen, others deny it — we cannot however y^t be y^e cause of y^e Microscope we discover Animalcules there — these, or some else is y^e impregnating principle get into y^e Fallopian Tube & by y^e means into y^e Uterus where the Ovary is impregnated. This is not so evident in Viviparous as in Viviparous animals where 20 Eggs are impregnated by a single Cock w^{ch} all come out of y^e Uterus where they were impregnated for we can hardly suppose y^t they should have their membranes formed wth such an impregnation as y^e Morsus Diaboli embraces y^e Ovary. We suspect y^t Conception takes place by impregnation — this is also evident in Excoelation where Testes are found lodged out of y^e Womb. This Ovary is again bro't into y^e Womb, & it appears in Viviparous animals to contain a little animal in its membranes w^{ch} is y^e speck of sperm in y^e Egg, y^e other subst contains there is designed for its nourishment. This little speck is bro't into y^e Womb by Viviparous animals & is nourished in y^e Womb — This Embryo lies at first loose in y^e Womb till it grows so as to fill y^e Womb, w^{ch} rubs against its sides it inflames y^e Womb & in consequence of y^t adheres to it as all inflamed Surfaces will adhere to each other. It has actually been found y^t y^e before y^e Womb do adhere to y^e Placenta. By this means there is a greater absorption of y^e nourishment a quantity of Serum is absorbed by y^e Placenta & carried to y^e Child, in consequence of w^{ch} it grows & at length quickens; it begins to move w^{ch} it is 4 or 5 months old; its Head at this time is larger than its Body, But its Body now begins to grow considerably; its length y^e membranes y^t don't adhere to y^e Womb becoming thinner burst, & y^e Child is born.

Now during this time of Gestation considerable Alterations take place in y^e Woman.

Hydric Symptoms In the first place, on y^e Impregnation of y^e Uterus, Hydric Symptoms arise especially at y^e begin^g, & considerable Scorchings from some differ^t Glan^ds, particularly a speck^d Ulcer with considerable Itchiness especially in y^e Thighs, & sometimes after Menses — sometimes y^e Part is very hungry attended wth particular Longings.

Diseases of Pregnancy

These symptoms increase to a consid^{le} degree for two or three Months — The Menstrua in some continue for some time after impregnation; & some few Persons menstruate thro^{ut} the whole time; but I suppose this is from ^{the} vagina — Indeed very seldom ^{of} ^{the} Menstrua appear after impregnation; or if they do, their quantity is consid^{ly} diminished.

As soon as ^{the} ^{foetus} ^{begins} to be distended ^{it} is in abt. a month's time, Plethoric symptoms begin to arise, & Pulse becomes hard, the Breath^g short, the Tongue white, & Blood taken from ^{the} Arm is inflam^d; the hysteric symptoms still continue — Abt. of 4th Month ^{the} child begins to move; the swell^g comes on, a fullness takes place in ^{the} Back first & then in ^{the} Belly. Abt. this time ^{the} Breasts begin to swell — W^h the child begins to move, ^{the} sickness goes off; but ^{if} plethoric symptoms still continue, & ^{if} frequently thro^{ut} ^{the} whole of pregnancy, & ^{if} woman is subject to Abortion w^h takes place in consequence of ^{the} strong action of ^{the} Uter^{us} in ^{the} womb whereby ^{the} Placenta is forced off — ^{if} this action of ^{the} Uter^{us} sh^old be increased by Inflammⁿ in any part of ^{the} Body as in ^{the} Pleurisy, an Abortion very frequently takes place; a quantity of Blood is thrown out betw^{en} ^{the} womb & ^{the} Placenta whereby it is separated — ^{if} Uter^{us} throws ^{off} Blood on ^{the} internal Uter^{us} also will produce this effect, such as Fev^{er}, Grip^s, Cold &c. violent Exercises such as Dancing, walk^g much &c produce Abortion. The Application of Purgatives particularly such as reproduce ^{the} Menstrua are attend^d with this effect — The applicatⁿ of Stimulants particularly ^{if} inflam^d part have ^{of} some effect.

Of Abortion

As Abortion may be bro^{ut} abt by diff^t causes, so diff^t means are to be us^d for its prevention. ^{if} it arises from too great an action of ^{the} Uter^{us}; Blood must be taken away — ^{if} violent Motion is ^{the} cause, the Part must be kept quiet. — ^{if} there arises an Hemorrhage from ^{the} womb

Prevention

as it is ^{the} case before Abortion takes place, it may be stop^d by bleed^g, by ^{the} Application of Sedatives & Astringents, & by lay^g ^{the} Part very quiet in Bed, & giv^g Foods ^{if} are very easy of Digestion, such as Broths & Farinaceous Foods. — All Cases of Inflammⁿ are vastly more dangerous in People with Child than in others; Fevers are also dangerous as Abortions are apt to take place.

The smallpox is almost always fatal, & ^{if} ^{the} ^{fever} ^{is} ^{greatly} ^{increased} in consequence of the distention of ^{the} womb; & ^{if} Abortion takes place as is frequently ^{the} case, ^{if} Part^s sink & the Part is destroy^d.

Other Chronical Dis^es such as ^{the} hysteric Dis^e are frequently cur^d by Pregnancy.

Of the Diseases of Children

cure

Here of Pest. Is greatly weakened, can't be bled. The principal thing to be done is to make use of Antispasmodics such as Nux, Matricaria &c. in Pultices applied to the Abdomen; & to give M.D. & mod. Squid. Crucul. inwardly.

The Pest is subject also to Miliary Fever w^{ch} we have already described.

It frequently happens to Women if don't give suck, in consequence of it milk stagnates in the Breast & swellings take place in it & sometimes a troublesome Fever comes on. — It is certain if Women were intended to suckle their own Childⁿ, & many troublesome symptoms arise both to the Mothers & Childⁿ for want of it. — We are to put a piece of Salomon over the Breast, & to give but little nourishing Food; & if symptoms of Inflamm^y Death take place we may take away some blood, but this is seldom necessary.

cure

Of the Diseases of Children

It is remarkable, if of all Animals the Human species live by far of greatest number w^{ch} young. It appears from Calculations made, if in London abt 9000 out of 16000 die under the Age of five.

Of Badger Ch?

— This must certainly be owing to some mismanagement. If such vast Numbers are cut off.

in use of

Proper Food

In order to breed up Childⁿ healthy there are 4 things necessary. — proper Food — due Exercise — to be kept Clean — and that they breathe a pure Air.

Milk most proper

In the first place, tis necessary if they should have proper Food. — There is at the begin^g of Life a peculiar Food provided for y^m w^{ch} is their Mothers Milk; nor is there any other if it is nearly so proper. — The Milk of diff^t Animals differ greatly; the Milk of Women

of good nourishment

contains a large quantity of Sugar & a small degree of Coagulable Matter. Mares & other Milk approach nearest to it, but there is a consid^l difference between y^m. — Women's Milk affords very good nourishment, so if it forms a consid^l quantity of Chyle —

Stimulates little

It is not Chyle as it enters into the Stomach for its mixed coat always regulates it. Milk whether there be an Acid contain'd therein or not — It is therefore digested in the Stomach before it enters into the Lactals — Milk stimulates very little during the time of digestion; and if Coagulable part prevents it from being so much as if Acid Fermentatⁿ as it w^{ld} otherwise do — There is no Food it has these diff^t parts of Sugar & Coagulable Matter in such a degree. — If we give Bread boiled in water along with sugar it will in some measure resemble Milk, but it does not by any means an^d so well.

Of the Diseases of Children

There is at least $\frac{1}{3}$ proportion of one third in fav^r of those who are nourish'd by milk.

Concreta more coagulable matter arising to 40%
 Besides, there is a considerable difference in $\frac{1}{3}$ Milk itself according to $\frac{1}{3}$ time of a woman becomes a Nurse; it contains a greater quantity of coagulable Matter in proportion as $\frac{1}{3}$ child becomes older & its digestive Powers stronger; so $\frac{1}{3}$ the Milk is so proper for a Child as that of its own Mother when coagulable Matter is suited to $\frac{1}{3}$ Age of the Child.

Child kept clean
 In the second place, 'tis absolutely necessary to keep $\frac{1}{3}$ Child clean. — The Capillaries are very numerous & very lax so $\frac{1}{3}$ there are very great secretions take place, $\frac{1}{3}$ bodies on the Skin where $\frac{1}{3}$ water evaporates & leaves $\frac{1}{3}$ neutral salts on the Skin. — Their Skin is very tender & therefore very easily stimulated by $\frac{1}{3}$, so $\frac{1}{3}$ wherever they c. salts are left whether behind their Ears or under $\frac{1}{3}$ arms, they frequently stimulate so as to produce Eruptions; & if not, they stimulate so as to render $\frac{1}{3}$ Body very irritable. — This is a point of great importance & full of a great consequence as giving it proper Food. — hence it is, $\frac{1}{3}$ of higher part living up more Childⁿ in London than the Poor, as they are kept cleaner & have better Food.

Good Air
 Again, Good Air is necessary for Childⁿ. — It is certain $\frac{1}{3}$ Air unfit for Respiration destroys vast Numbers, this appears by $\frac{1}{3}$ calculation made of those Childⁿ $\frac{1}{3}$ belong'd to $\frac{1}{3}$ Foundling Hospital if were kept in Town & Country. 25 died in the Country & 36 in the Town. it is to be supposed $\frac{1}{3}$ Childⁿ in $\frac{1}{3}$ Country are as little taken care of as those in the Town — I have seen a Chicken $\frac{1}{3}$ was kept in a Room grow much less (in two Months) than another $\frac{1}{3}$ was of $\frac{1}{3}$ same age bro't up in $\frac{1}{3}$ Air. — It is impossible to send all $\frac{1}{3}$ Childⁿ into $\frac{1}{3}$ Country, but 'tis certainly $\frac{1}{3}$ sh^d be sent out as often as possible.

Exercis
 Again, a great degree of Exercise is necessary — Healthy Childⁿ are always moving while they are awake, & then are always healthier than others — It is hardly possible $\frac{1}{3}$ any woman besides the Mother of $\frac{1}{3}$ Child who is endow'd with maternal fondness will take $\frac{1}{3}$ pains necessary for to keep $\frac{1}{3}$ Child in proper Action as well as clean. — We are of late Years greatly less'd in our care of Childⁿ, & therefore it is $\frac{1}{3}$ of so many such Numbers.

Of the Diseases of Children

Child? if are not bro't up wth those circumstances are vastly liable to be afflicted with Subject to Dysenteries; not with Acid Purges w^{ch} all are liable to, but w^{ch} an Inflamⁿ of y^e Mucous Membrane w^{ch} throws upⁿ into Convulsions — They are liable to Catarrhs, together with the Rickets & Scrophula; and if they sh^d escape these Disorders, their Constitutions are weak & never arrive to y^e Habit of Body w^{ch} otherwise they w^d be in.

Child? w^{ch} first born have a quantity of matter in their Intestines w^{ch} is very glutinous w^{ch} purges, y^e first Milk also purges, tho' it is usual to give y^m Sugar & Symp^led Oil to carry off y^e Mucum.

Infⁿ on y^e Skin The Skin be^g very dry, they are liable to have Inflamⁿ there; w^{ch} this is y^e last, a little Rhubarb given to y^e child, or some lenitive Rectuary to y^e Mother will carry it off; this seldom arises to any great height, provided y^e child is kept clean.

Acidities

They are besides liable to Acidities in y^e Stomach, & child? if are well bro't up are seldom Subject to any purge but w^{ch} arises from these; they have green stools, the Bile be^g destroy'd by y^e Acid in y^e Stomach gives it this green colour — This Acidity is destroy'd by Magnesia or Calcareous Earth; it is better to give Magnesia first, & then to use the Calcareous Earth; a Dose is to be given at first every Hour till it purges, & then it is to be given every Day till y^e Acid is quite destroy'd — This is y^e only Dis^e they are liable to till they cut their Teeth. — If the are not kept clean, or w^{ch} is upon to cold they are liable to purges attend^d with Gripes & a Catarrh; the Gripings are caus'd by y^e Stimulus of w^{ch} the Child is thrown into Fits resembling Epileptic, & in consequence thereof are cut off

Fits

These Fits are very troublesome & very difficult of Cure. — As there are some Acidities in y^e Stomach, Magnesia with a small quantity of Rhubarb may be first given; after y^e exhibition of these, by small Doses of Emetic Tartar I have seen the Dis^e cur'd; abt^y 1/5 of a grain of Emetic Tartar is suff^{ic} for a Dose — It will be necessary also to administer some distill'd Water of y^e Umbelliferous Plants, such as Aniseed or Dill. — But if these Gripings continue till y^e internal Coat of y^e Intestine is inflam'd, the little Pits are generally cut off — Sometimes Blisters & Antispasmodics such as Asa Foetida are of Service.

Catarrh

The Catarrh is a very troublesome Dis^e — if y^e Child is plethoric, Blood is to be taken away by Leeches, & then small Doses of y^e Emetic Tartar are of Service — w^{ch} any Stimulus is apply'd, the Pulse comes to beat much more quick; it is in its nat^l state upⁿ of 110 strokes in a Minute.

Of the Diseases of Children

Sucking

These Dis^s excepted, Childⁿ generally go on pretty well till they come to cut their Teeth, w^{ch} happens wⁿ they are 7 or 9 months old — At this time if Milk is not so proper for y^m, if y^e Child sucks longer he is render'd weaker thereby — Ab^t 9 months therefore, provid^d the Child is free from Teething is a proper time to wean him — In Teething the Gums come to be inflam^d, Purg^g & universal looseness take place — If the symptoms except if Purg^g are not violent, nothing is to be done — The Purg^g may be taken off by y^e use of Calcareous Earth; but if y^e symptoms of Inflamⁿ are great, the Gums must be cut; 'tis better to cut out a piece of y^e Gum w^{ch} may be done by two small Incisions, after this if symptoms of Inflamⁿ go off. — It has been tho^t of use to let y^e Child press its Gums with a Piece of Coral, but I much doubt whether this is proper; for any part of y^e Body y^e is rub^d frequently with a hard Subst^{ce} is render'd more callous thereby — Childⁿ are apt to put th^{gs} into their Mouths, but a piece of Liquorice Root is better than a harder Subst^{ce}. — After y^e Teeth are all cut, y^e great degree of Irritability w^{ch} has hitherto prevail^d is in a considerable measure remov^d; & y^e Child is pretty safe except it be from these Dis^s to w^{ch} all are liable to, such as y^e Smallpox, Measles, & Chin Cough.

There are several Dis^s to w^{ch} Childⁿ are subject if they are not kept clean, particularly Inflamⁿ behind y^e Ears, & Exulcerations in several Parts of y^e Body, quickness of y^e Pulse whereby Acidities are also generated. — If such Inflamⁿ take place a little dry Lint or Fleec applied to absorb y^e Neutral Salts may be suff^t; or else y^e Calces of Lead such as Ceruse may be apply^d, w^{ch} will take off y^e Pain & other symptoms.

Rickets

Childⁿ if not taken care of are subject to great degrees of Weakness w^{ch} we call Rickets. The Capillaries are large & numerous, the secretions copious, & if not taken care of y^e Capels become lax, & y^e secretions in consequence thereof still more copious. — The consequence is y^e great weakness takes place, the Belly swells by water & y^e Bones, calcareous Earth is not deposited in y^e Bones, or it is taken up again into y^e Circulatⁿ, whereby y^e Bones become flexible & take diff^t bend^{gs} — Wⁿ there is one Bent form^d y^e Child in order to prevent falling bends the other way whereby two Curves are form^d, & sometimes three or 4 — The Legs & Thighs are also bent, & y^e Son's Body soft swells in consequence of y^e pressure made upon them — In the mean time, y^e Lymphatics & Glands of y^e Mesenteries swell consid^{ly}; there is also a quantity of Water thrown into y^e Cellular Membrane,

Of the Diseases of Children.

w^{ch} comes at length to be discolored in it, & sometimes of Bones y^{et} slower; so if there arise several small Ulcers w^{ch} are very difficult of Cure.

Reformation &
Cure

Ch^o if are brot up in y^e manner I have described will not have y^e Rickets; this Dis^e therefore may be prevented; for there are few Ch^o born so weakly but w^{ch} they may be strengthened.

It is to be cured by proper Food, good Air, & suitable Exercise together with y^e Exhibition of Strengthen^g Med^s. — tis difficult to make y^e take these Med^s: y^e Bark y^e will not take but a grain or 2 of y^e Stones Martiales may be given wth Advantage.

If the Child is not destroy'd by it, y^e weakness goes off as y^e Child grows up; tho' the Curvature of y^e Bones remain tho' they may not be much seen — w^{ch} an Oak is small there are several Curvatures in it w^{ch} do not appear wth tis grown up to be a Tree — the Curvatures unless they continue to increase will be but little observ'd w^{ch} y^e Bone is grown to its full size. The greatest Mischief is in y^e Pelvis of Woman w^{ch} is frequently contracted so y^e y^e Head of y^e Child can't be got thro' in any direction, so y^e y^e Woman is destroy'd.

Worms

Another Dis^e to w^{ch} Child^{en} are subject is y^e Worms. — It frequently happens y^e Eggs of diff^t Animals are thrown into y^e Stomach; but they are frequently destroy'd & convert'd into Phlegm; but w^{ch} y^e Powers of Digestion are not sufficiently strong, they are hatch'd. They are of 3 kinds; the Tape Worm consists of a number of Soints, its Head has several Prickles by w^{ch} it fastens itself to y^e Intestine; several other Worms hang from this (for it is not one Worm) & y^e whole sometimes make up 15 or 16 yards. — The Round Worm is not many Inches long — The Ascarides are small, resemble Maggots. — they are seldom found in Persons of good digestion. — There are various other kinds sometimes found. Those who live on Meats & Fruits are easily more subject to y^m yⁿ those who live on farinaceous Foods; those who live in warm Climates are more subject to this Dis^e yⁿ others such as y^e Negroes in America. — w^{ch} Worms are lodg'd in y^e Body, the food instead of afford^g nourishm^t goes to y^e support of these Worms; there arises great paleness & weakness, the Child is very hungry & yet very much emaciated; there are always also some particular symptoms such as Pick^g of y^e Nose, & grat^g of y^e Teeth, w^{ch} together with y^e Worms coming away show us y^t Worms are lodg'd there.

doubt^d

Of the Diseases of Children

Cure

The worms are to be poison'd & then the strength of the Intestines is to be restor'd. Bitters have been employ'd for this purpose, & Crude Mercury boil'd in water, it does not dissolve itself, but if calx of it is form'd on the surface. Indian Pink has also been given, but Tin is of most efficacious Med^o, this must be prepar'd in a manner I have describ'd in Lect^{on} Chemistry, it shoud be mix'd with some Acid such a Lixant Jelly or some other like Subst^o w^{ch} will ensure its success. Its Dose must be more consid^{er} than has been usually exhibit'd, a Dram or two to child^{en} & to persons grown up to ʒ quantity of an Ounce. — The Primæ viæ are to be clean'd first by a Dose of Rhubarb w^{ch} is to be given for two or three Days if the Stool may not be enlarg'd by the Mucus, then if Powder is to be given, after this if Surge is to be repeated so^{on} the worms are destroy'd the Bowels are to be strengthen'd to prevent if Dis^e from

Whooping Cough

recurs. Another Dis^e is of Whooping Cough. — This Dis^e is one of those of affects of Pat^l but once — it gon^{ly} affects Ch^{il}, it begins like a Catarrh, the only difference is, if of Fit of Cough continues much longer, the consequence of w^{ch} is if of Pat^l is render'd Sick & a vomitg comes on. — After there is a consid^{er} secretion of Mucus of Cough still continues & greatly weakens if Pat^l, & in consequence thereof destroys him.

From its lat^{er} place but once, & its long continuance we shoud be ready to apprehend if it is owing to something thrown into a System in a same manner as of small pox, if it is so, we don't know any method of destroy'g it. — We are oblig'd to treat it as a Catarrh — If of Pat^l is plethoric we bleed, & then give Med^o prod^g expellable Cris^t; if these do not do, & if Spasmodic Structures continue, we give Antispasmodics; & if of Pat^l is greatly weaken'd we give strengthen'g Med^o, we give Mush^o, Camphire, Oiler & all of better & strengthen'g Subst^o. — If of Pat^l is in Fev^r, after of Inflamⁿ is taken off, he is to be sent into of Country. — This is of method in w^{ch} of Dis^e has been treated with most success. — A vast many specifics have been recommended such as Lobelia, Melleopodæ &c but they are of very little use.

Cure

Of the Headach

Apthae

The last of these Dis^r to w^{ch} Child^{ren} are subject to w^{ch} we shall take notice of are *Apthae*

Causes

Where *of Mucous Membr^a* is affected & laid bare, then this inflamed Pt^h is covered over with a whitish Mucus. — This arises fr^m a vast many diff^t causes, such as *of Mucus of Mouth & Throat* be^g carried off; by *if* least formed in *if* rid of *if* removed. Inflammⁿ in *if* Intestines, Stomach or Throat by any thing *of* will disolve *of* Mucus — And w^{ch} once off are produced, they frequently run thro' *if* whole Mucous Membrane. — The Dis^r takes place in Ch^l in consequence of purg^s or of great Acidities in *if* Stomach; they frequently run thro' *if* whole Intestines, they prevent Nutritionⁿ, & by their Stimulus produce a Fever & convulsions. — These *Apthae* are a kind of defence to *if* Mucous Membrane so *if* it may not be further inflamed; provided they don't continue long they leave *of* Membrane covered with a fresh Mucus. — Where *of* *Apthae* do not affect *of* Glands & *of* Part^h is old enough, *if* Bark very soon cures *of*; *if* Inflammⁿ goes off, & *if* *Apthae* dis^r appear; but where *of* Part^h is so young *if* he will not take *of* Bark, we apply Acids *of* *if* Milder kind to harden it, & cause it to fall off. In the mean time we give Food *of* good Nutritionⁿ. — But manytimes in spite of all we can do they continue & cut off *of* Part^h. — By preventing Purg^s, & Acidities from be^g generated in the Stomach, we prevent this Dis^r from tak^g place.

Cure

Of the Headach

Cases of
of
Distinctions

I have gone thro' *if* *if* Disorders & I have little more to say on *of*, as this *if* is nearly *of* done — I have already shown you several kinds of Headach, such as *of* Headach arising in *if* *if*, w^{ch} generally takes place in *if* Membranes, or Sinus Frontalis or Concreasium. — The Headach w^{ch} arises from an Inflammⁿ *of* *if* Brain, w^{ch} is a thro^g discontinue Pain shoot^g thro' *if* Head — The Headach arising from Rheumatism, this is not confin^d to any particular part, but rather affects *if* hinder part than the forehead. Cold apply^d to *if* Head will produce this kind of Headach. — Sometimes this Disease may arise from an Inflammⁿ *of* *if* Membrane *of* Sinus frontalis; the Pain here is immoderately above *of* Eyes & is very exquisite. — There is a Case or two *of* a Headach occasioned by a Worm get^g into *if* Sinus frontalis, the pain came on by Fits & these very irregular — this is very uncommon.

Of the Headach

The Common Headach is of spasmodic one arising from a contraction of of vessels in the Pericranium, or of vessels of of Skin. This agrees to exactly with other spasmodic Disorders, yet we hardly find it worth mentioning. It happens frequently in weak & irritable Habits, & is not on in of some manner as other Spasmodic Symptoms are. — It is also frequently produced in strong Habits, from a variety of causes, such as Drinking freely, Particular Smells &c. Now this is very irregular & different in its appearances; sometimes it continues for a considerable time, sometimes its continuance is but short; its very different with regard to if time of its return; sometimes it receives an easy fresh cause apply'd; at other times it comes on periodically, & those intervals are as diff. as in of Epilepsy, sometimes recurring in 2 or 3 months, & sometimes in 24 Hours. — It is also very different with regard to if part of of that wch it occupies, but it is chiefly in the Forehead, sometimes one half is affected, & sometimes of whole; & sometimes but a small part. In this last case it may be covered wth of Finger & then it is call'd of Clavis Suptorius; w^{ch} one half is affected tis call'd of Hemicrania — sometimes it affects of Eyes. — It agrees with other Spasmodic Complaints both in its prognostics & Cure.

Prognosis W^{ch} it attacks a very weak Pat^t. by strengthening of Pat^t. we get rid of it. — W^{ch} it arises in strong Habits, tis difficult of Cure especially for any length of time, & comes on Periodically, then it frequently continues thro' of whole of of Pat^t. life.

Cure It is cur'd in of same manner w^{ch} other Spasmodic Disorders. — Antispasmodics are given in the Fit; Valerian has been consid.^d as a specific; but I don't think if it is of greater efficacy than others. — This Plant loses its virtue very soon; we recent tis given to of quantity of a Dram with advantage. — Castor, Volatile Alkali & Turpentine Oil have been given w^{ch} success apply'd to of stomach. — The Volatile Alkali is of greater efficacy than of Valerian. — To the Part itself may be apply'd Vol. Alkali, Rhen & Empyreumatic Oil, w^{ch} give some relief, but off soon lose these effects.

Strengthening The same kinds we smell to as of Eau de Luce, or Sated Spirits sometimes relieve. Bark may be given to strengthen the system in gen^l.; it also takes off of Pain for of part in periodical Headachs; in strong Habits it must be given in the Intervals, but it must be given in as large Doses as in Intermitts.

Of Diseases of the Eyes

10th This Dis^e takes place at long Intervals, is more difficult of Cure; the Better and Stronger Med^s have no great effect; but of Antispasmodics constantly such as Valerian for half a year, will give relief.

The same kind of Pain affects all the other parts of the Body, such as the Stomach, Intestines, Kidneys &c. — Opium may be apply'd with very great Advantage in Weak, tho' not in Strong Habits.

Of Diseases of the Eyes.

I have commonly avoided entering into Dis^es of Surgery, & as they vary but little from others, it is hardly worth while to enter on y^e; as we don't propose to enter into those Methods of Cure, we have therefore avoided those Disorders w^{ch} take place in consequence of external Inflamⁿ, such as those of the Ear, Eye &c.

The Dis^es of the Eyes are very various & more than we can enter into in several Lectures, all y^e I propose at present is to treat of some of y^e principal. — The Eye consists of several Parts — In the first place, the Retina is liable to Inflamⁿ or Palsy. — Inflamⁿ is produced by too strong a Light affect^g the Eye; or in consequence of an Inflamⁿ of the Brain, for as it receives its vessels from the Brain, the Inflamⁿ may spread to the Retina. — 10th this Inflamⁿ it becomes exquisitely sensible; an inability to bear light is one of y^e symptoms of an Inflamⁿ of the Brain; is attended also with a torrid Pain at y^e bottom of the Eye. It is reliev'd by y^e common means of let^g off Inflamⁿ; such as Bleed^g from y^e Septum in general, & from y^e Part; & by y^e applicatⁿ of sedatives — Most of the other Parts also come to be inflam'd in consequence of this Inflamⁿ. — It is liable also to Palsy in consequence of Inflamⁿ, Pressure on the Brain, or on the Optic Nerve either by Tumor or Water — sometimes the Nerve is shrivel'd up & destroy'd & that sometimes with^o any kind^e cause at all.

11th This Dis^e is incurable — The vitreous Humour & its Membrane are liable to a variety of Disorders — The Membrane is liable to Inflamⁿ, & y^e Humour to lose its Transparency.

The Inflamⁿ is to be reliev'd as above direct'd; but 10th of Humour or its Membrane becomes opaque tis seldom cur'd. — The Crystalline Humour is liable to y^e same Disorder; but here if sight is restor'd by depress^g or let^g out the Humour, & its place is supply'd by y^e aqueous Humour.

12th The Aqueous Humour is liable to become opaque in consequence of Inflamⁿ of y^e Cornea.

Of the Retina
Inflamⁿ, Palsy

Vitreous Humour

Crystalline Humour

Aqueous Humour

General Rules abt. forming our Judgm^t of Diseases

Iris Has been found there w^{ch} has destroy'd its transparency. — Sometimes by removal of the Humour we cure of Cat^h. — The Iris is also capable of Inflammⁿ & Palsy, in both w^{ch} cases of sight is either lost, or render'd very indistinct. — The External Coat of of Eye is liable to inflamⁿ. This is produc'd either by external stimuli or w^{ch} of Eyelids or other parts are inflam'd; as a great quantity of Blood passes thro' the Cornea, of Cat^h was every thing red. — This Inflammⁿ is to be taken off by bleed^g from of system in general, & also from of Part affected, & by use of sedatives.

Cornea Frequently an opacity of of Cornea takes place in consequence of it by wound or thickn^g; sometimes this is cur'd by cut^g of Arteries of head into of Cornea, or by throw^g in a quantity of Glass finely powder'd whereby it is ground down; some dull vision is hereby obtain'd, but if Dis^e does soon recur. — There is an opacity of of Cornea w^{ch} is curable w^{ch} arises from a relaxation of of Capsel; then appears a Cloud before of Eyes, but not constantly; the Eyes look dim, & appear as if of crystalline Humour was opaque but it is not so, its cure to of dullness of of Iris. — This Dis^e is cur'd by strengthen^g the system in general. — The Mucous membrane of of Eye is liable to inflamⁿ in consequence of w^{ch} large secretions take place. — The Lacrymal Duct may be obstructed, in consequence of w^{ch} of Tears run down of cheeks — But this falls more intrinsically under of Province of Surgery as all External Inflammⁿ are.

Mucous Membr.

General Rules abt. forming our Judgm^t of Diseases

The Pat^t thinks of nothing but his pres^t Unavailing, these are of symptoms w^{ch} he is most apt to relate, but there may be many symptoms of give him little assistance w^{ch} may give us of greatest knowledge of of Dis^e. These symptoms are taken fr^m of State of of Pulse, Skin, Intestines, Tongue, Urine & of Eyes.

Signs to be taken from of Pulse.

We have already shewn of signs of are to be taken fr^m of Pulse. — In irritable Habit, of Pulse varies consid^{ly}; or if Physician's com^g into of Room, of Pat^t anxious for relief if he is irritable is flatter'd; we sh^d therefore feel of Pulse a 2^d time after some enquiries made; tis of use to feel it at our first entrance also, for this changes how consid^{ly} irritability. — Another M^o is, the Manner of feel^g it; if it is too much compress'd, it stops; but a slight touch will hardly discern it — tis best to lay on two or 3 fingers, & to feel it softly at first & then to press gradually till it is almost obliterated, & then to lift the fingers gradually — tis best to lay on two or 3 fingers or else we may press it into a cavity or against a Bone, w^{ch} but will give it a feel of Hardness.

General Rules to form our Judgment of Diseases

Skin The state of *Skin* is to be attended to in acute Dis^e; if it is much contracted and Dry it shows if there is a considerable degree of Fever; if there is a burning heat in it Hand together with a paleness of the Fingers it manifest a great degree of Fever; but if the Skin is moist & the heat is equally diffused it shows there is but little Fever present. — The state of secretions on the Skin shows also of strength or weakness of the Part; if vesicles take place abt. of Head & Breast while of *Pulmonities* are cold it shows us that other of *Arteries* are acting strongly, or if there is no hard Pulse, if there is a great degree of weakness. — The state of the Tongue shows us of state of the Capillaries under the Skin & also of state of the Blood. 1^o the breath is not very great & the Tongue is dry, it shows if the Skin is considerably contracted; if the Tongue is covered with a white dry Coarst it shows that the Blood is purged, but if the Tongue is brownish or black, or if whole Mouth is covered with a black Surface, then the Blood is putrid; & according to the degree of Blackness is the Putridity of it takes place.

Urine The Urine shows us also of state of the Internal Parts, of contract of the Vessels & of state of the Blood. If the Patient has not drank a considerable quantity, the paleness of the Urine shows that the Vessels are greatly contracted & if this happens at the beginning of a Fever, tis commonly a forerunner of Delirium. If the Urine is coloured & especially of a very deep colour, it shows that the Blood is putrid. — Urine in Fevers shows great weakness & Irritability; the same may be said of the Skin & Tongue. Urine depositing a Mucous Sediment shows great weakness — This is therefore a matter of it is to be attended to in all acute Dis^e. — The Urine shows also of action of the Arteries where there is no great degree of Fever as in Peripneumonies, Pleuritis, & Rheumatism, it becomes then very thick & is called Urina Samentosa.

Intestines The state of the Intestines are to be attended to, as many of the symptoms of the Dis^e depend on the extension of the Fever. — Tis sometimes if case of a Patient by Custom may go to Stool but once in two or three Days without any ill consequence, but in a Dis^e this is always attended with ill effects; it occasions a disagreeable feel in the Stomach like hardness attended with an anasarca of the Stomach & symptoms of Fever. — The state of the Praecordia should be examined; if the breath is free & easy, then the Fever is light; but if the Praecordia are hard & swelled it shows a considerable degree of Fever.

Praecordia The Eyes are to be attended to, as they show us of degree of Intensity of Dis^e. — 1^o Delirium takes place in consequence of Intensity, if Eyes are red & swelled — In a cold fit of Fever, the Eyes are sunk; but when a great degree of Irritability prevails, the Eyes are quick & bright. — Rather than to give prominence to the Patient, he seldom mentions it; & you may forget the Inquiries unless you make a practice to do so. And tho' some times it may be of no consequence, yet we may sometimes forget it, when of great use.

General Rules to form our Judgment of Diseases

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Practising
from a
History of
the Dist.

After having enquired into the Symptoms of a Disease not only of present but of past also, a good Practitioner will form a Judgment of what is to come from a History of a Disease. — I have reason to show you of the History of a Disease & in what manner it will terminate if no Med^{ts} are given with it. This is impossible for any Physician to practice with any kind of Advantage, for unless you know what you are to avoid how can you give Med^{ts} to prevent these consequences? To take off the present Symptoms has been of late the end of many, but this is most ridiculous; for if we were to cease to undertake a Patient, if he has an Intermitting Fever for example, he complains of he is very cold, you place him in bed, & give him some stimulating Med^{ts}; he then complains of he is very hot, this Symptom you take off by copious Bleeds & Sedatives; he then is very thirsty, this is to be taken off & his Strength to be supported; at length if the Patient is easy, & there is nothing farther to be done. — Thus in an Inflaming Fever, to get rid of the Inflaming Diathesis, you take off a large quantity of Blood; but if there is a considerable Fever, you evacuate the Patient immediately, you are then to give heat & Med^{ts} to supply the want of Strength which you deprive him of. — Thus in a Pleurisy, if the Patient complains of a violent pain, if you give a quantity of Opium to take off the pain you destroy the Patient. — You give Opium in this case, but it is often given absurdly. — I would never enquire what the Symptoms were but what the Name of the Disease was. — A great many Physicians practice as well as him to the Name of a Disease; if it is a Dysentery, Dover's powder is directed; if it is a Putrid Fever, Bark & Marsh-mallows are given — without understanding the History of the Disease it is impossible to practice to Advantage; and without knowing whether Med^{ts} will do good or harm & if timely for applying these Med^{ts} you can never cease. — Dr. James's Powder is a Med^{ts} which has killed more than it ever cured, notwithstanding it is a Med^{ts} which may be employ'd with great Advantage in Fevers — there is no Med^{ts} which is proper at all times. — And as the History of Diseases have not been attended to, there has been as much mischief as good done by the practice of Physicians; multitudes might have been saved by a right practice, tho' people must die, notwithstanding the use of Dr. Hill's Fracture of the Leg. — If we had Wooden Legs to make trials on it would not be material, but as we have the Lives of our fellow-creatures in our hands, those who practice Physic without the knowledge of the Disease, are guilty of at least of Crimes, as they destroy the Lives of those who put in greatest Confidence in them. — By knowing the History of a Disease we know what Med^{ts} are proper, & at what time they are to be given, a Person who is thus acquainted with it, may at once prescribe for the whole of it.

General Rules to form our Judgment of Diseases

If a Puls in a Fever has great Suppression of Pericardiac & you can easily prognosticate if there will be great danger of Delirium here, & if if Puls is not soon cut off he will be in great danger of being destroyed in 2^d of 3^d of 4th by 4th Symptoms of Irregularity — In this case you w^d not bleed because of hardness of Puls does not require it, but you administer Med^{ts} prod^g Equable Circulⁿ, but you lose of Advantage of their Exhibition in some future Season. — But if there is a hardness of Puls & no great symptoms of Fever, you bleed, & don't much insist on Med^{ts} of Equable Circulⁿ, as by 4th means Puls is soonest relieved.

This Practising according to a Plan, is calld by many practising according to Theory; but this is a wrong representation for we do not pretend to give 4th Cause of Fever, but to cure it according to its nature symptoms & progress. — Those who disclaim Theory are many times guilty of a greatest Abundance — Thus Sydenham bleeds & gives 3 Purgatives in 4th Sea Scurvy — If a Person has some Theory, he will be careful to correct it by observation; but if a Person has no Theory at all, as it is impossible to practice with some Theory so he must practice in a most Absurd Manner. — This Practising from 4th whole of 4th Dis^e is not Theory, & by this means you will not only prevent present symptoms but also guard against future ones w^d w^d otherwise take place. — One of the greatest Physicians in Germany & who had practiced with 4th greatest success was offer'd Money to reveal his secret, he reply'd, "wⁿ you know my Manner, you know my Medicines, as I practice according to 4th Dis^e and 4th particular symptoms thereof."

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